From: "Stephen M. Gavitt" <smg03@health.state.ny.us>
To: "Mark G. Virgil" <mgv01@health.state.ny.us>
Date: 7/8/2004 12:34:46 PM
Subject: Re: Dunn Tire - 9540 Niagara Falls Blvd. Site:MORE Info

Thanks Mark

Mark G. Virgil
07/07/2004 05:00 PM
To: Stephen M. Gavitt/BERP/DEP/CEH/OPH/DOH@NYSDOH
cc:
Subject: Dunn Tire - 9540 Niagara Falls Blvd. Site:MORE Info

I returned the call to Scott Overhoff, HEI, and informed him of my discussion of this site with Lou Henry. I explained that Mr. Henry had been made aware of the true level of radium contamination (~200 pCi/g), and would probably be in contact with HEI. I also told him that Mr. Henry (see his May 16, 2004 letter) was not aware of the scope of the work plan. Mr. Henry believed that ~1" diameter bore holes would be pushed, and a probe would be lowered for VOC determination. HEI expected DEC Region 9 staff and BERP staff to work together, and provide joint-Agency approval of the proposed work plan, including Lou Henry's RAM management procedures.

HEI staff would like to know if the RAM contamination will be a significant problem in the execution of the petroleum clean-up operation. Will RAM-management and DOH requirements be excessively complex and expensive, and conceivably surpass the cost of the petroleum clean-up? I told Scott that it may be more expensive than a site with a radium concentration of 5 pCi/g. At the 200 pCi/g level, would the cost RAM management exceed the cost of the petroleum spill clean-up? My reply; "I don't know. Mr. Henry will have to make that determination".

Mark

----- Forwarded by Mark G. Virgil/BERP/DEP/CEH/OPH/DOH on 07/07/2004 04:35 PM -----

Mark G. Virgil
07/02/2004 01:39 PM
To: Stephen M. Gavitt/BERP/DEP/CEH/OPH/DOH@NYSDOH
cc:
Subject: Dunn Tire - 9540 Niagara Falls Blvd. Site

Today I discussed this site with Lou Henry, and informed him that the Ra-226 concentrations were in the 200 pCi/g range. He was unaware of the extent of the project and believed that HEI intended to push/drill a small diameter hole (1") and insert a probe to measure VOC and other organic materials associated with petroleum operations. I read parts of the HEI's May 20 letter to DEC regarding the scope of the work plan. HEI intends to bore several (around 6) holes to a depth of 12', and collect soil samples at 4' intervals. In view of the significantly higher Ra-226 levels, and the extent of the boring, Lou Henry will discuss the entire project with HEI. DOH should receive follow-up correspondence in the coming weeks.

CC: Adela Salame-Alfie <asa01@health.state.ny.us>, "Barbara Youngberg" <bayoungb@gw.dec.state.ny.us>

From: Robert Crossen
To: Youngberg, Barbara
Date: 2/13/2004 10:24:15 AM
Subject: Re: Dunn Tire

At this point it will be drilling an taking soil and possibly water samples.

Dependent on the results further work may be necessary.

rob

forwarded this to Steve Gaiott 2-17-04 BY

From: Barbara Youngberg
To: Calandra, Salvatore; Crossen, Robert
Date: 2/13/2004 9:48:39 AM
Subject: Dunn Tire

DOH has talked to the contractor for the investigation and advised them to have a health and safety plan and a radiation expert to advise them. One question we have is, what's involved in doing the investigation? Do they have to excavate, or just punch some cores or geoprobes? Thanks.

CC: Gavitt, Steve

From: Barbara Youngberg
To: Gavitt, Steve
Date: 2/12/2004 1:40:26 PM
Subject: Dunn Tire

Steve - I've talked with Rob Crossen in our Region 9 office, and the bottom line is that DEC won't be reviewing any work plans for this investigation. So, since the only regulatory hook on the radioactive material is yours, I think you folks should be the contractor's primary contact. But if the contractor wants to talk to us, too, that's fine. I'll try to call you tomorrow to discuss further. Thanks for keeping us in the loop.

CC: Calandra, Salvatore; Crossen, Robert; Dassatti, Edwin; Mitchell, John

From: "Stephen M. Gavitt" <smg03@health.state.ny.us>
To: "Barbara Youngberg" <bayoungb@gw.dec.state.ny.us>, <jimitche@gw.dec.state.ny.us>
Date: 2/3/2004 1:04:52 PM
Subject: Dunn Tire - Niagara Falls

Rec'd a call from Scott Overhoff of Hazard Evaluations (716/667-3130) his company was contacted by the owner of the Dunn Tire property to conduct an evaluation of soil for hazardous material. Sounded like the owner was requested to test the soil a while ago but just recently decided to act. Mr. Overhoff was aware of the radioactive contamination and wanted to know if he needed to take any precautions. I told him that I needed to review the file but that they will need to get health physics support (probably a licensed contractor). How do you want to handle this? Do you want to include this as part of your (DEC) H&S plan review (if you do that)? Let me know. Thanks, Steve.

CC: "Adela Salame-Alfie" <asa01@health.state.ny.us>, "Cynthia A. Costello" <cac04@health.state.ny.us>, <bxi02@health.state.ny.us>, "Ralph R. Van Houten Jr." <rrv01@health.state.ny.us>, <sak06@health.state.ny.us>

Talked to Steve on 2/10/04-
DOH asked DOL whether investigators need to have license. ans: not for taking samples, but ~~probably~~ yes for remediation

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

May 16, 2001

Mr. James Martin, LLC
642 Kreag Road
Pittsford, NY 14534

Re: 9524 Niagara Falls Boulevard, LLC
Niagara Falls, NY 14303

Dear Mr. Martin:

This is in response to Mr. Stephen Hall's letter dated May 9, 2001 where he requests clarification of my February 12, 2001 letter regarding the above site. My February 12, 2001 letter refers to a tank removal operation that took place at 9550 Niagara Falls Boulevard and not at the property that you represent.

We realize that the tank removal activities took place at the adjoining site. Given the fact that you share a property line, and that there is contaminated soil underneath the parking lot on both properties, we feel it is pertinent to copy you on any relevant correspondence. Furthermore, we wanted to advise you of our concerns, and to reiterate the need to maintain the property in its current state (i.e., no excavation without prior approval, etc.).

I hope this clarifies your concerns. If you have additional questions please call me at (518) 402-7556.

Sincerely,

Adela Salame-Alfie

Adela Salame-Alfie, Ph.D.
Assistant Director
Bureau of Environmental
Radiation Protection

Cc: S. Hall
B. Ignatz - DOH
B. Youngberg - DEC
J. Archbold - NCDOH
J. Wehner - Green Environmental
F. Amendola

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

May 15, 2001

Mr. James Wehner
Manager
Green Environment Specialists
8335 Quarry Road
Niagara Falls, NY 14304

Re: Dunn Tire (Amendola)
9540 Niagara Falls Boulevard
Niagara Falls, NY 14304

Dear Mr. Wehner:

This is a follow-up to your conversation with Dr. Salame-Alfie last week regarding the disposal of the contaminated soils presently located above ground at the property located at 9540 Niagara Falls Boulevard. These contaminated soils were excavated from the parking lot during the removal of the oil tanks. We have reviewed your letter dated April 20, 2001 where you indicated the cost of disposal of the approximately thirty cubic yards of contaminated soils.

This Department agrees to allow you to temporarily return these soils to underneath the parking lot, provided the soils are paved over and the pavement maintained on a regular basis. This decision was based on the fact that the soil that remains above ground is just a small fraction of the total contaminated soil present, and the packaging, transporting and disposing of that material is costly. Allowing contaminated soils to remain under a paved parking lot is a temporary measure and should not be construed as a final remedy. The Departments of Health and Environmental Conservation plan to examine the long term cleanup need for this and other sites throughout the State in the future.

In the meantime, I would like to remind you of our agreement to:

1. Immediately report any proposed change in ownership, use and physical condition of the property to the Regional Health Director, Western Region, New York State Department of Health, 584 Delaware Avenue, Buffalo, NY 14202; as well as the Niagara County Department of Health, 5467 Upper Mountain Rd., Lockport, NY 14094-1899. (The present use of the parking lot does not include residential occupancy such as living in recreational vehicles).
2. Maintain the surface integrity of the parking lot so that the radioactive aggregate material remains in place.

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

BY

April 9, 2001

Mr. James Wehner
Manager
Green Environment Specialists, Inc.
8335 Quarry Road
Niagara Falls, NY 14304

Re: Dunn Tire (Amendola)
9540 Niagara Falls Blvd.
Niagara Falls, NY 14304

Dear Mr. Wehner:

This is in response to your letter received on March 23, 2001 regarding the referenced site. In your letter you request that we reconsider our decision regarding the disposal of the radioactively contaminated dirt currently staged above ground at the site. In order for us to reconsider our decision, we need to have additional information.

You state in your letter that you obtained a preliminary cost estimate to transport and dispose of the radioactive waste staged above ground at the site. You further indicated that your estimate of the volume was 30 cubic yards, and that the cost of disposal is prohibitive. No mention is made of the proposed cost, or any of the assumptions used to arrive at that conclusion. Please provide this office with the necessary details as to the cost estimate, including a description of the proposed method of packaging, and disposal location.

We are willing to work with you to expedite resolution of this matter. To do that, please provide the requisite information as soon as you can. If you have any questions please give me a call at (518) 402-7556.

Sincerely,

Adela Salame-Alfie

Adela Salame-Alfie, Ph.D.
Assistant Director
Bureau of Environmental
Radiation Protection

Cc: K. Rimawi
B. Ignatz
J. Archbold
P. Merges

C:\My Documents\dunntire_letter2.doc

New York State Department of Er nmental Conservation
Division of Solid & Hazardous Mate ials
Bureau of Radiation & Hazardous Site Management

TELEPHONE OR VERBAL CONVERSATION RECORD

☐ INCOMING CALL ☒ OUTGOING CALL ☐ CALL RETURNED ☐ VISIT

DATE: 4/2/01
TIME: pm

PERSON CALLING	OFFICE/ADDRESS	PHONE NO.
P. Merges + B. Youngberg		

PERSON CALLED	OFFICE/ADDRESS	PHONE NO.
Adela Salame-Alfie	DOH	

CONVERSATION

SUBJECT Dura Tire – 3/15/01 letter from Green Env. Spec.

SUMMARY

Adela asked if DEC would oppose burying excess soil onsite. We said DOH has regulatory authority thru Apelrod letter. She said the letter isn't an Order - not enforceable. We said 380 applicability is questionable if DOH doesn't license. We all agreed to ask for the details of the cost estimate referred to in the letter, and that more sampling would be needed - so we know what's in the pile.

REFERRED FOR ACTION TO	COPY TO

ACTION REQUESTED none by DEC

DOH will reply to Green's letter.

☐ ADVISE ME OF ACTION TAKEN

INITIALS

DATE

ACTION TAKEN

INITIALS

DATE

Green Environment Specialists, Inc.

March 15, 2001

Dr. Adela Salame-Alfie, Ph.D.
State of New York
Department of Health
547 River Street
Troy, NY 12180

Re: Dunn Tire (Amendola)
9540 Niagara Falls Blvd.
Niagara Falls, NY 14304

Dear Dr. Salame-Alfie;

Green Environment Specialists (GES), the environmental contractor retained by the owner's general contractor to oversee and manage the remediation of the site referenced above has been exploring and investigating options as they relate to the radioactive and petroleum contamination.

We have proposed and received tentative (pending approval of our work plan) approval from the DEC to treat the petroleum contamination by insitu bioaugmentation of Oxygen Release Compound (ORC).

We have obtained a preliminary cost estimate to transport and dispose of the low level radioactive soil (estimated at 30 cu/yds) staged above ground on site as required in your letter of February 12, 2001. The cost estimate is prohibitive in view of what it will accomplish, considering that the subject property and adjacent properties are known to be equally contaminated
It is our opinion that disposal off site is not economically feasible given what it will accomplish. We have also been advised that the owner does not have the financial ability required to absorb this cost and the cost of remediating the petroleum contamination.

We are requesting that the DOH reconsider their decision of February 12, 2001 and allow us to place the staged material back into the existing excavation and restore the blacktop surface. Settling and drying of the excavation have provided enough room to accomplish this and will result in only a slight rise in the parking lot area.

1-800-275-8256 • (716) 298-5297 • FAX (716) 298-5754
8335 Quarry Road Niagara Falls, New York 14304

We have been in contact with a consultant experienced in radioactive sites and familiar with this particular area. As a result of our discussions we have tentatively identified the generator of this waste.

The consultant is in the process of reviewing his available information but his initial feeling is that the soil should be sampled and tested to determine the actual levels of radioactive material present prior to determining disposal options.

He is also of the opinion that as this material is not FUSRAP related waste, and local disposal may still be an option.

It is our intention to resolve this matter in the most economically sensible and timely manner without involving attorneys, unnessary expense and without creating a media or publicity nightmare.

We also feel that this matter could result in the closure of another business in an already economically depressed area and possibly have a negative effect on other business' in the near area.

Sincerely,

James A. Wehner, Manager

GES

From: Daniel David
To: Dassatti, Edwin; Riggi, Jerry; Wren, Maureen; Youngberg, Barbara
Date: 9/27/2006 10:57:47 AM
Subject: Re: Fwd: Niagara Falls site - 2001 excavation

I spoke to Sal Calandra who was the original Spills program lead in 2001. He confirmed my understanding from the spills report. The answers to the first several questions, then, are as follow:

- No, the owner decided on his own to remove the tanks (2-1000gal gasoline, 1-500gal heating oil, 1-300 gal waste oil). In checking our PBS records, the tanks do not appear to have been registered; were likely installed pre-regulation and not in use. Regulatory options would be to register or remove/close. Not sure why tanks were being removed at that particular time, however.
- The contractor followed the correct procedure in that he notified DEC spills staff when petroleum contaminated soil was discovered around the tanks on 1/16/01; spills staff then opened a spill file for the site, #0075561. (While an argument could be made that the owner should have notified PBS staff of the existence of the tanks and that they were being removed, this would clearly not be a contractor responsibility and would not likely have changed subsequent events, since we were notified of petroleum contamination issue promptly.) The soil was then stockpiled on-site pending sampling; on 1/24/01 the contractor requested staff inspect the site to advise how much more excavation would be needed to address petroleum contamination being found. That led to the request to NCHD to do inspection and the series of events described below, resulting in NYSDOH involvement. Ultimately, it was determined that radiation issues took precedence and soil was placed back into excavation with NYSDOH concurrence.
- Staff are familiar with Green Environmental and have no particular problems with their work. We do not recommend specific contractors, however, one way or the other.

Please let me know if you have additional questions or if you want to discuss this further. I should be available all day. Thanks.

>>> Edwin Dassatti 09/27/06 9:37 AM >>>
I agree with Dan. May be we should request that we estabish a procedure with DOH for someone to notify DEC in cases like this. Either DOH notifies us or includes DEC notification in their orders and/or letters to make sure our staff is aware of possible issues when they repond to a site- thanks ed

>>> Daniel David 9/27/2006 9:29:47 AM >>>
I agree that most of the questions seem to be about the original Spills response. I have a copy of the spill report, but the Regional Spills Engineer, Dan King, is not here to help interpret (vacation through next week). I have a call in to one of his assistants who may be familiar with the details. I'll let you know what I come up with.

Not quite sure how to respond the the last 2 questions. DOH is not normally involved in spill response, so staff would not have reason to call or notify them. When Niagara County HD was asked by Spills staff to inspect the site (normal practice in Niagara County), they were aware of radiation issue and mentioned it to DEC spills staff. Spills staff then spoke to NYSDOH staff later that day (which does appear to be 8 days after the original call from Dunn's consultant).

The crux of the questions seem to go to how are these sites tagged or monitored by DOH. There is no listing of sites or any other way for most DEC staff to know where they are or even ask the question. I would think the responsibility would be with the site owners to identify a concern. I believe the site owners were notified of the issue by DOH in 1979, and communicated with DOH in both 1998 and 2000. They should have considered this issue when the tank removal was done and notified both their own consultant and DEC Spills staff, right?

In any case, I'll let you know when I get more information on the other questions. Thansk.

>>> Edwin Dassatti 09/27/06 8:48 AM >>>
Barb is at a solid waste meeting in lake placid thru Thursday - I'm in this am only - I have sent your e-mail

to Jerry Riggi who has been at the site - let us know when you'd like to meet - with the questions you have you may want the region 9 spills engineer in on the discussion most of the question would be his - thanks ed

>>> Maureen Wren 9/26/2006 6:31:02 PM >>>
Here are some new questions I received from the Niagara Gazette. Would it be possible to meet up for a conference call or something to discuss these tomorrow?
Thanks
Maureen
518-402-8000

>>> Aaron Besecker <beseckera@gnnewspaper.com> 09/26/06 4:06 PM >>>
Hi Maureen,

I e-mailed and called Meaghan in the Buffalo office earlier today, but I'm not sure if she forwarded these to you, or even if you're the one that is handling it.

I'm hoping you'd be able to get me a few answers for my story on the 2001 excavation at the Dunn Tire site, 9540 Niagara Falls Blvd.

Here are my questions:
Was the property owner under any type of directive from the DEC to remove those tanks?
did the environmental contractor follow the correct procedures in the process?
what kind of performance record does the contractor, Green Environment Specialists, have with the DEC?
the property owner says the state DOH was not notified of the excavation until 8 days after it began. is that your view?
when should the DOH have notified the DEC? immediately?
the property owner seems to be questioning the communication between the two agencies? what is the practice for communication?

thanks,
Aaron
--
Aaron Besecker, reporter
Niagara Gazette
310 Niagara St.
P.O. Box 549
Niagara Falls, NY 14302-0549
phone: (716) 282-2311 ext. 2263
fax: (716) 286-3895
e-mail: beseckera@gnnewspaper.com
www.niagara-gazette.com

CC: Boice-Green, Meaghan; Calandra, Salvatore; King, Daniel; Snyder, Abby

57

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

Mr. Frank A. Amendola
P.O. Box 408
Falls Street Station
Niagara Falls, NY 14303

Mr. Stephen E. Hall
Attorney at Law
9524 Niagara Falls Boulevard, LLC
2750 Monroe Avenue
Rochester, NY 14618

February 12, 2001

Dear Messrs. Amendola and Hall:

On January 24, 2001 it was brought to our attention that during a tank removal operation at your property, located at 9524 and 9540 Pine Avenue, Niagara Falls, NY some radioactively contaminated soil and slag were unearthed. On February 7, 2001, we met with Mr. James Wehner of Green Environmental Specialists, Inc. at the site. During that meeting he informed us that most of this radioactive material had been placed back in the hole and that a small amount (approximately 30 tons) was still sitting on the parking lot.

Please be advised that in accordance with the letter dated August 6, 1976 signed by Department of Health (DOH) Commissioner Axelrod, and agreed to by the site owners (enclosed), this Department should have been advised prior to any excavation taking place at the site. In the future you must notify and obtain approval from this Department prior to any disturbance of the parking lot resulting in exposing the radioactive material buried under it.

Given that most of the excavated material was already put back we are not asking you at this time to excavate it again for disposal. We ask you at this time to secure the services of a consultant or a radioactive waste broker to ensure that the material currently stored above grade at the site is disposed off properly. Furthermore, given the radioactivity levels of the material presently under the parking lot, any future material excavated needs to be disposed at a licensed radioactive waste site

Additionally, you need to install a barrier between the contaminated soil and the clean fill, such as a polyethylene liner and/or crushed stone, to minimize additional contamination and thus the volume of contaminated material that will need to be disposed of in the future.

If you have any questions please do not hesitate to contact Mr. Stephen Gavitt or myself at 518-402-7550.

Sincerely,

Adela Salame-Alfie

Adela Salame-Alfie, Ph.D.
Assistant Director
Bureau of Environmental
Radiation Protection

Enclosure

Cc:
Barbara Ignatz	-	NYS DOH
Barbara Youngberg	-	NYS DEC
John Archbold	-	Niagara County DOH
James Wehner	-	Green Environmental Specialists, Inc.

Pile of excavated Soil at Dunn Tire

2/6/2001

Pile of excavated soil at Dunn Tire

7/1/2001

From: Salvatore Calandra
To: Youngberg, Barbara
Date: 2/2/01 5:50PM
Subject: Fwd: Dunn Tire- site visit on Tuesday

Unfortunately Barb, I am going to be out of the office all day Tuesday. So I won't be available. You may want to contact the contractor for the site since I know he would be interested in meeting with all parties to find out everyone's views on this site and you could get his. His name is Jim Wehner (pronounced: way-ner) from Green Environment Specialists. His phone number is 1-800-275-8256 or 716-298-5297. I'll call you on Wednesday to see how things went.

CC: Buechi, Peter; Internet:paul.dicky@niagaracounty.com; Mitchell, John; Shattuck, Frank

From: "Adela Salame-Alfie" <asa01@health.state.ny.us>
To: "Paul Merges" <pjmerges@gw.dec.state.ny.us>
Date: 1/30/01 10:28AM
Subject: Re: Dunn Tire

Paul, Barbara

I'll send you a copy today of some surveys that were done. I understand that the material is slag from the processing of Niobium. From one of the reports it indicates that a piece of aggregate material using in the construction of the parking lot showed uranium, thorium and radium with the following concentrations;

U-238 1010 +/- 5% pCi/g 3E-03 gram U238/gram of rock
Th232 840 +/- 4% pCi/g 7.6E-03 gram Th232/gram of rock
Ra226 205 =/- 4% pCi/g

Let me know if you need to see the rest of the file (is not too big!)

"Paul Merges" <pjmerges@gw.dec.state.ny.us> on 01/29/2001 08:46:40 AM

To: Adela Salame-Alfie/BERP/DEP/CEH/OPH/DOH@NYSDOH
cc: "Barbara Youngberg" <bayoungb@gw.dec.state.ny.us>
Subject: Dunn Tire

Where did RAM come from? What isotopes and activities have been dug up?

CC: <bayoungb@gw.dec.state.ny.us>, "Barbara Ignatz" <bxi02@health.state.ny.us>, "Karim Rimawi" <kxr01@health.state.ny.us>

New York State Department of Env mental Conservation
Division of Solid & Hazardous Mate.ials
Bureau of Radiation & Hazardous Site Management

TELEPHONE OR VERBAL CONVERSATION RECORD

X INCOMING CALL ☐ OUTGOING CALL ☐ CALL RETURNED ☐ VISIT		DATE: 01/29/01 TIME: c. 2:00 pm
PERSON CALLING Sal Calandra	OFFICE/ADDRESS Region 9 - Spills	PHONE NO. 716-851-7220
PERSON CALLED B. Youngberg	OFFICE/ADDRESS Radiation Section	PHONE NO. 518-457-2225

CONVERSATION

SUBJECT
Dunn Tire

SUMMARY
Sal explained that there is some petroleum contaminated soil that has been excavated from next to the building on this site. Barbara Ignatz of DOH has been to the site and told them it would have to go to Envirocare, not a landfill, but that it could also stay on site. So, they are considering some type of in situ treatment for the petroleum contamination. They are anxious to backfill the excavation (with the excavated soil) because it is compromising the building structure. I told Sal that I saw no problem with backfilling, but that the slag should not be put next to the building foundation. Sal said that the phosphate slag has been mixed into the soil now. He said he will talk to his supervisor, and will probably let them backfill today.

I offered to review the treatment plan to see if there are any radiological considerations. Some options involve installing geoprobes and injecting some material underground. There is petroleum contamination under the floor. I said I thought the slag had only been used on the parking lot, but if there was slag under the building, the holes would allow radon into the building. Sal said they may cap or plug the holes. (We will see when we get the plans.)

REFERRED FOR ACTION TO	COPY TO	
ACTION REQUESTED		☐ ADVISE ME OF ACTION TAKEN INITIALS DATE
ACTION TAKEN		INITIALS DATE

NEW YORK STATE DEPARTM T OF HEALTH
Bureau of Environmental Radiation Protection
547 River Street – Room 530
Troy, NY 12180-2216
Telephone: (518) 402-7550

To Paul Hughes

BY

6/23/2000
letter

From: Karim Rimawi, Ph.D.
Director

Date 7/17/00

BN-106

STEPHEN E. HALL
ATTORNEY AT LAW
400 EXECUTIVE OFFICE BUILDING
36 WEST MAIN STREET
ROCHESTER, NEW YORK 14614

TELEPHONE: (716) 546-3770
FACSIMILE: (716) 546-3776
(NOT FOR SERVICE OF PROCESS)

ADMITTED TO PRACTICE
NEW YORK AND ARIZONA BARS

ELLA L. KRZANOWICZ

June 23, 2000

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED (Z 229 507 528)

New York State Department of Health
Buffalo Regional Office
584 Delaware Avenue
Buffalo, New York 14202

Attn: Regional Health Director

RE: 9524 Niagara Falls Boulevard
City of Niagara Falls, Town and County of Niagara

Dear Sir or Madam:

I represent 9524 Niagara Falls Boulevard, LLC and write with respect to your department's correspondence of August 6, 1979 to Ceegood Corp., copy enclosed, concerning the above property, identified in your correspondence as The Pine Bowl, at 9524 Pine Avenue.

Please be advised that my client has recently purchased the property at 9524 Niagara Falls Boulevard from Ceegood Corporation. Please note that the transfer of ownership will result in no change in the use of the building and property from that previously, as a bowling alley and related parking.

The enclosed notification is of course provided to you pursuant to item 1 on page 2 of your August 6, 1979 correspondence.

Very truly yours,

Stephen E. Hall

SEH/am
Enclosure

C:\Data\Amy\9524niagara.002.wpd

NEW YORK STATE DEPARTMENT OF HEALTH
CENTER FOR ENVIRONMENTAL HEALTH
2 UNIVERSITY PLACE
ALBANY, NEW YORK 12203

FAX NUMBER: (518) 458-6434

TO: BARBARA YOUNGBERG RADIATION BUREAU

FAX NUMBER: ( )

FROM: W. CONDON

TELEPHONE NUMBER: ( )

DATE 6/9/98

NUMBER OF PAGES TO FOLLOW: 11

COMMENTS: FYI · MAY BE COMING UP AGAIN WITH SALE OF PROPERTY

PLEASE CALL _____ TO CONFIRM RECEIPT OR PROBLEM OF THIS DOCUMENT. THANK YOU.

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ALBANY

DAVID AXELROD, M.D.
COMMISSIONER

August 6, 1979

Gentlemen:

This is in regard to the radiation surveys conducted by representatives of the New York State Health Department at Pine Bowl, 9524 Pine Avenue, and Baia Pontiac, 9540 Pine Avenue, Niagara Falls, New York, and the adjacent parking lot in order to evaluate the potential health risks associated with the stone aggregates used in the construction of the parking lot. This aggregate material contains naturally occurring radionuclides. The radiation survey measured the external radiation levels in the parking lot and inside the two buildings operated as Pine Bowl Bowling Alley and Baia Pontiac and the concentration of radon, a radioactive gas which may be released into the atmosphere from this aggregate material.

The results of these surveys have been evaluated by staff of the New York State Health Department, and examined by an ad hoc Advisory Committee on Radioactivity in the Environment. A list of the members of the Department's Advisory Committee is attached.

The present use of the property does not constitute a hazard either to the workers or the general public that would necessitate any immediate remedial action in order to protect the health and safety of individuals.

The Health Department, with assistance from the Advisory Committee is in the process of examining the environmental radiation levels in the State and will develop, as needed, criteria for required protective actions. Upon the completion of this study, the Pine Bowl-Baia Pontiac radiation levels will be re-examined in light of the developed criteria.

The total amount of radioactive material in the parking lot based upon the laboratory analysis of the aggregate indicates that the possession, use and/or storage of this amount of radioactivity comes under the provisions of the State's radioactive material regulations. While current use of the property does not pose a significant health hazard, a change in the use of the parking lot could lead to higher radiation exposures than presently evaluated.

New York State Department of En ımental Conservation
Division of Solid and Hazardous Ma.erials
Bureau of Pesticides and Radiation

TELEPHONE OR VERBAL CONVERSATION RECORD

☒ INCOMING CALL ☐ OUTGOING CALL ☐ CALL RETURNED ☐ VISIT

DATE: 6/16/98
TIME: c. 2:15 pm

PERSON CALLING	OFFICE/ADDRESS	PHONE NO.
Paul Meosky		
PERSON CALLED	**OFFICE/ADDRESS**	**PHONE NO.**
B. Youngberg		

CONVERSATION

SUBJECT Pine Bowl, Niagara Falls

SUMMARY

Mr. Meosky said he is the attorney for the owner of the Pine Bowl site. I had called Andy Kucseriki earlier today, to see if the site owner wanted us to do a site visit while we were in western New York on Thursday (6/18). Mr. Meosky wanted background info. I explained that the RAM was NORM, not licensed, and there was no violation involved. I said we were offering to help the landowner assess the problem if he wanted to be able to sell it w/o the restrictions DOH had put on it in 1979. I explained the USRADS + that we couldn't do in depth (>4') coring. I offered to fax a copy of TAGM-4003. He said he'll talk to the landowner + get back to me

REFERRED FOR ACTION TO	COPY TO

ACTION REQUESTED	☐ ADVISE ME OF ACTION TAKEN
	INITIALS
	DATE
ACTION TAKEN	INITIALS
	DATE

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	0469
CONNECTION TEL	p125977p7168490349
CONNECTION ID	
ST. TIME	06/16 13:46
USAGE T	02'16
PGS. SENT	7
RESULT	OK

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Pesticides & Radiation, Radiation Section
50 Wolf Road, Albany, New York 12233-7255
518-457-2225 FAX 518-485-8390

John P. Cahill
Commissioner

attny for Pine Bowl
↓ site owner

FAX

TO: Paul Meosky
DEPARTMENT/COMPANY:
FAX NUMBER: 716-849-0349

FROM: Barbara Youngberg
BUREAU OF PESTICIDES & RADIATION, RADIATION SECTION

DATE: 6/16/98

****

NUMBER OF PAGES: COVER, PLUS 6

FOR VERIFICATION/PROBLEMS CALL (518) 457-2225

OUR FAX NUMBER IS (518) 485-8390

REMARKS: TAGM-4003

feel free to call if you have any questions

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Pesticides & Radiation, Radiation Section
50 Wolf Road, Albany, New York 12233-7255
518-457-2225 FAX 518-485-8390

John P. Cahill
Commissioner

FAX

TO: Andy Kucserik
DEPARTMENT/COMPANY:
FAX NUMBER: 716-759-7823

FROM: Barbara Youngberg
BUREAU OF PESTICIDES & RADIATION, RADIATION SECTION

DATE: 6/9/98

****

NUMBER OF PAGES: COVER, PLUS 6

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OUR FAX NUMBER IS (518) 485-8390

REMARKS:

☐ ORIGINAL BEING MAILED
☒ ORIGINAL NOT BEING MAILED

****
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****

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CONNECTION ID	
ST. TIME	06/09 09:43
USAGE T	02'15
PGS. SENT	7
RESULT	OK

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Pesticides & Radiation, Radiation Section
50 Wolf Road, Albany, New York 12233-7255
518-457-2225 FAX 518-485-8390

John P. Cahill
Commissioner

FAX

TO: Andy Kucserik
DEPARTMENT/COMPANY:
FAX NUMBER: 716-759-7823

FROM: Barbara Youngberg
BUREAU OF PESTICIDES & RADIATION, RADIATION SECTION

DATE: 6/9/98

****

NUMBER OF PAGES: COVER, PLUS 6

FOR VERIFICATION/PROBLEMS CALL (518) 457-2225

OUR FAX NUMBER IS (518) 485-8390

REMARKS:

Mr Cashman

Fill
Loow

NEW YORK STATE DEPARTMENT OF HEALTH

For release: IMMEDIATE
Thursday
January 24, 1980

• NEWS RELEASE •

DAVID AXELROD, M.D.
Commissioner

CONTACT: MARVIN G. NAILOR, DIRECTOR OF COMMUNICATIONS (518) 474-5422

ALBANY, January 24--Dr. David Axelrod, State health commissioner, will schedule a meeting next month of outside radiation experts to review a recently received federal report of aerial and ground surveys of radiation "hot spots" in the Niagara area of New York State.

The Ad Hoc Advisory Committee on Radiation in the Environment, appointed last year by Dr. Axelrod, had reviewed preliminary results of the surveys at its first meeting last June and found that approximately 15 locations in Western New York, identified in the aerial surveys as exceeding normal background radioactivity, did not pose a significant health hazard to persons working or living in the area.

"The committee's initial observations do not, however, rule out the need for future remedial action," Dr. Axelrod said. "At that time we were working with preliminary information, most of which was provided to us verbally by the U.S. Department of Energy." The Department of Energy conducted the surveys in 1978 and 1979 at the request of the State Health Department, Dr. Axelrod said. "On January 23, 1980 we received a letter from the U.S. Department of Energy indicating that recently received written reports on aerial and ground surveys contained the final observations of the Department of Energy."

Dr. Axelrod said his staff is currently reviewing the report, comparing it with earlier data to determine if there are any additional sites not previously reported. "We will also be mailing copies of the report together with our own observations to members of the committee prior to the meeting," he said.

"I am asking the committee to evaluate the report in its entirety so as to advise me whether the State's original position should be maintained or modified with respect to actions previously taken and to provide me with recommendations which would assist us in developing standard criteria to be applied in other similar situations. Furthermore, I am inviting to the meeting representatives of groups and organizations interested in this issue, including Congressman John LaFalce's local radiation oversight committee with whom we have been in regular contact since receiving the report last week."

Dr. Axelrod also noted that he has asked the U.S. Environmental Protection Agency to conduct an independent evaluation of the Department of Energy report and provide him with its conclusions.

Commissioner Axelrod said that, after his department received the preliminary results in a briefing by the U.S. Department of Energy in March 1979, staff of the State Health and Environmental Conservation agencies followed up with ground radiation surveys of the sites where aerial monitoring showed radiation to be the highest and of greatest concern from a human health standpoint.

-over-

1/24/80-7 PH

Mr. Davies - 3rd Floor -

August 6, 1979

Dear Mrs. Amendola and Mr. Amendola:

This is in regard to the radiation surveys conducted by representatives of the New York State Health Department at Pine Bowl, 9524 Pine Avenue, and Baia Pontiac, 9540 Pine Avenue, Niagara Falls, New York, and the adjacent parking lot in order to evaluate the potential health risks associated with the stone aggregates used in the construction of the parking lot. This aggregate material contains naturally occurring radionuclides. The radiation survey measured the external radiation levels in the parking lot and inside the two buildings operated as Pine Bowl Bowling Alley and Baia Pontiac and the concentration of radon, a radioactive gas which may be released into the atmosphere from this aggregate material.

The results of these surveys have been evaluated by staff of the New York State Health Department, and examined by an ad hoc Advisory Committee on Radioactivity in the Environment. A list of the members of the Department's Advisory Committee is attached.

The present use of the property does not constitute a hazard either to the workers or the general public that would necessitate any immediate remedial action in order to protect the health and safety of individuals.

The Health Department, with assistance from the Advisory Committee is in the process of examining the environmental radiation levels in the State and will develop, as needed, criteria for required protective actions. Upon the completion of this study, the Pine Bowl-Baia Pontiac radiation levels will be re-examined in light of the developed criteria.

The total amount of radioactive material in the parking lot based upon the laboratory analysis of the aggregate indicates that the possession, use and/or storage of this amount of radioactivity comes under the provisions of the State's radioactive material regulations. While current use of the property does not pose a significant health hazard, a change in the use of the parking lot could lead to higher radiation exposures than presently evaluated.

In view of the above, we request that you immediately implement the following:

1. Immediately report any proposed change in ownership, use and physical condition of the property to the Regional Health Director, Buffalo Regional Office, New York State Department of Health, 584 Delaware Avenue, Buffalo, New York 14202. The present use of the parking lot does not include residential occupancy such as living in recreational vehicles.

2. Maintain the surface integrity of the parking lot so that the radioactive aggregate material remains fixed in place.

3. Collect and dispose of all loose pieces of the aggregate material in or around the parking lot. The method of disposal of the aggregate material must be approved by the New York State Department of Health prior to initiating any actions with regards to such collection or disposal. The Regional Health Director, Buffalo Regional Office, should be contacted concerning disposal of any aggregate material.

I would appreciate your acknowledging this letter within 20 days and advising me of your acceptance of the above-mentioned recommendations.

We wish to express our appreciation for your cooperation during the surveys.

Sincerely yours,

David Axelrod, M.D.
Commissioner of Health

Attachment

Mrs. Rose M. Amendola
Mr. Frank Amendola
Box 279, LaSalle Station
Niagara Falls, New York 14304

bcc: Dr. Axelrod (6 copies)
Dr. Haughie
Mr. Leavy
Dr. Hetling
Dr. Stasiuk
Mr. Davies
Dr. Campbell

Attachment II

Survey of Pine Bowl and Baia Pontiac

The interiors and certain exterior areas of Pine Bowl and Baia Pontiac, Niagara Falls, New York, were surveyed during the period May 23 and 24, 1979, by Messrs. O'Brien and Heald of the New York State Department of Health. A discussion of the situation and survey findings was held on Thursday afternoon, May 24, 1979, in Mr. Arthur Gellman's office. This report summarizes the survey findings and the meeting.

Survey Pine Bowl

An extensive survey was made of the interior of Pine Bowl Lanes. The instrument used for all survey work in this report was one on loan from the New York State Department of Environmental Conservation (DEC). The detailed results are attached. Readings ranged from 5 to 60 microroentgens per hour (μr/hr).

The nursery area is new and the occupancy was estimated between 6 and 15 children per 3-hour shift (3 shifts per day). There could be as many as 2 attendants in this area.

The lounge and snack area were being operated from 6:30 p.m. to approximately 1:30 a.m. Usually 1 person worked in the snack area and 3 or 4 in the lounge. Tables and chairs were located in the lounge along the Pine Avenue side. There was also a small dance area on the same side.

At least 1 person would be behind the desk during operating hours. The office would be occupied at irregular intervals during working hours.

At least 1 person would be in the shop area for 8-10 hours per day.

The area behind the lanes (West wall) would be occupied for machine maintenance as required.

One storage area on the North wall could not be entered during the survey due to lack of keys for the lock. This was a small area and the surveyors deemed entrance not necessary as it is rarely occupied.

All of the above information was obtained with the assistance of Mr. Mike Kurutz, Manager.

Survey Baia Pontiac

The interior of the service areas of Baia Pontiac was extensively surveyed and the results are attached. Readings ranged from 15 to 100 μr/hr in the wash area, collision shop and storage area. Mr. Thomas Baia, owner of the dealership indicated that 2 employees worked in the collision shop and 3 in the wash area for one shift per day. Mr. Baia also indicated that these two areas had been added since he purchased the dealership (previously Volkswagen) 11 years ago.

The front service area was also surveyed with readings all less than 10 μr/hr. This area had an occupancy of 6 employees.

Outside Surveys

An area directly behind the paved parking lots of Pine Bowl and Baia Pontiac was surveyed as indicated on the enclosure. For the first approximately 20 feet the readings averaged 200 µr/hr and then fell off to 15 µr/hr as the surveyors continued in a northerly direction into the low wet area.

The parking lot designated as "new cars" showed readings of from 250 to 500 µr/hr.

To the East of Baia is an area designated as Goodwill Used Cars (also owned by Tom Baia). Readings in the paved parking area were from 6 to 20 µr/hr, but as one proceeded North to the grassy area the reading increased to a maximum of 50 µr/hr. Some black particles of slag were noted in the grass. The particles gave readings in excess of 3 mr/hr when held to the survey instrument. Mr. Baia related that when he purchased the dealership a house had stood in the Goodwill area which he had had torn down prior to building the present structure. At this time fill had been placed in the Goodwill parking area.

To the East of Goodwill was the foundation of an old motel. This area was surveyed with readings ranging from 6 to 10 µr/hr.

The final outside area surveyed was to the East of the paved parking area behind Pine Bowl. One drawing had shown this area as being a part of the parking lot. The area was low and wet. The readings dropped to the 8 to 10 µr/hr range after approximately 20 feet from the pavement.

Meeting on May 24, 1979

A meeting was held in Mr. Gellman's office at 2:30 p.m. on May 24, 1979 to discuss the situation. Those present were:

Paul Haas, Owner-President of Pine Bowl

Richard Ackerson - Vice President of Pine Bowl

Mike Kurutz - Manager of Pine Bowl

Arthur Gellman - Lawyer for Pine Bowl Corporation

Thomas Baia - Owner of Pontiac dealership (not property owner)

Messrs. O'Brien and Heald, New York State Health Department

The results of this week's surveys and other surveys were discussed. The group expressed a concern over the fact that one agency had almost closed their doors, another had told them no problem, and the NYS Health Department was now saying something in between these two previous extremes. It was obvious from the discussion that there was a definite doubt in their minds as to who knew what they were doing. The group was very cooperative while expressing deep concern for the economic impact on their businesses.

The following items were brought forth in the discussion:

1. Mr. Gellman would act on behalf of Baia Pontiac as well as Pine Bowl.

2. They were very concerned about press coverage and could not understand why it had not been in the papers.

3. They wanted to be able to take necessary steps to correct the situation prior to press coverage.

4. They expressed fear that any reference to cancer risk would ruin their businesses regardless of how small this risk was. They requested that we use caution when using this term in reports that could become public information.

5. The parking area behind Baia Pontiac is used by Pine Bowl through an agreement with Baia.

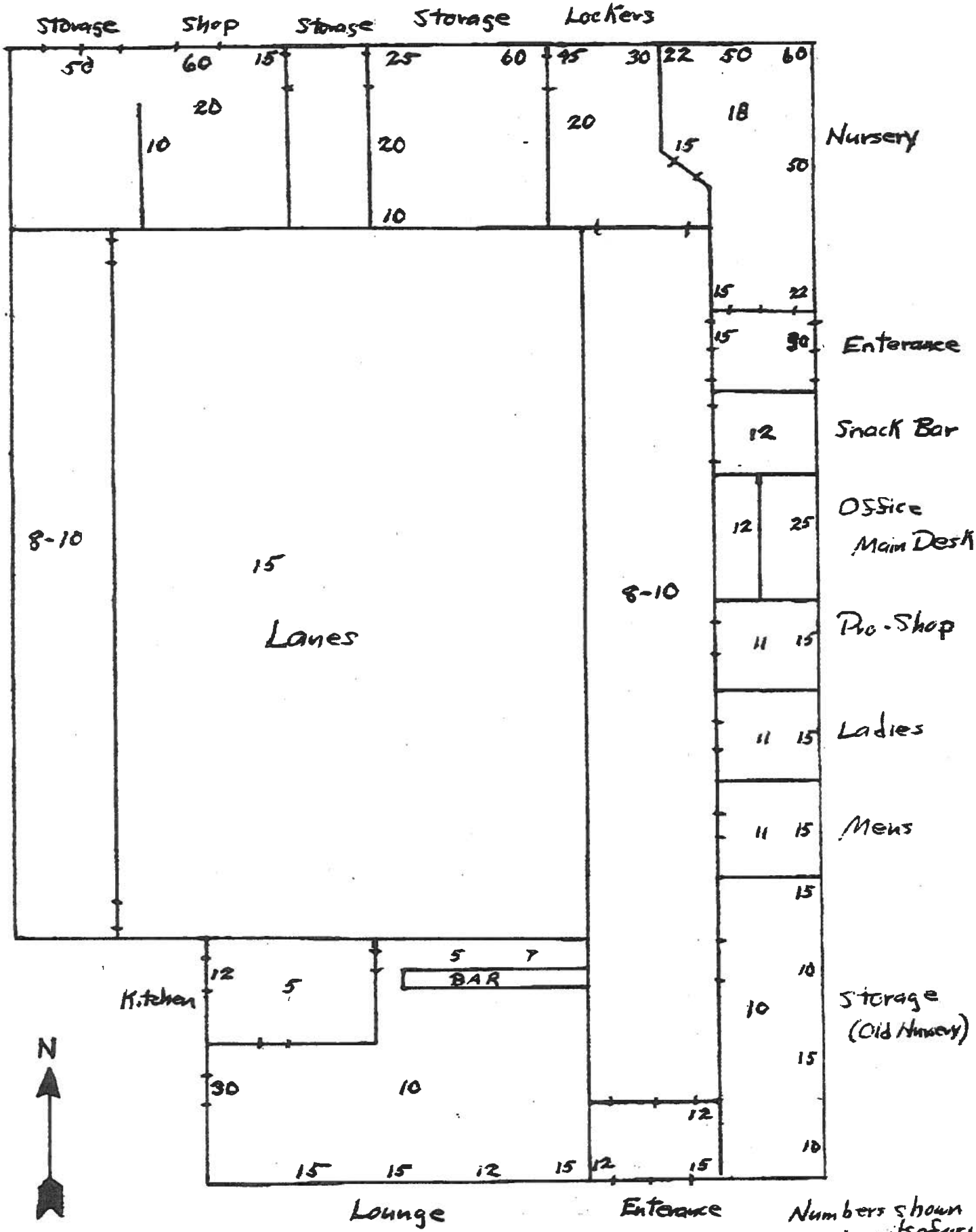
6. Thomas Baia owns only the dealership, not the property, which is owned by Frank Amendola.

7. If Pine Bowl were ordered to remove the complete parking area they would close the establishment permanently as the cost would be prohibitive. They estimated a minimum of $250,000 with no special considerations for the disposal of radioactive materials present.

8. Both parties involved expressed a willingness to reduce the levels inside the buildings by means of excavation or additional shielding.

Mr. Heald indicated that he would try to get an answer to the analysis of the survey results within two weeks. He also stated that someone from Albany would meet with the concerned parties in Niagara Falls to discuss any actions that might be taken by the New York State Health Department prior to that action.

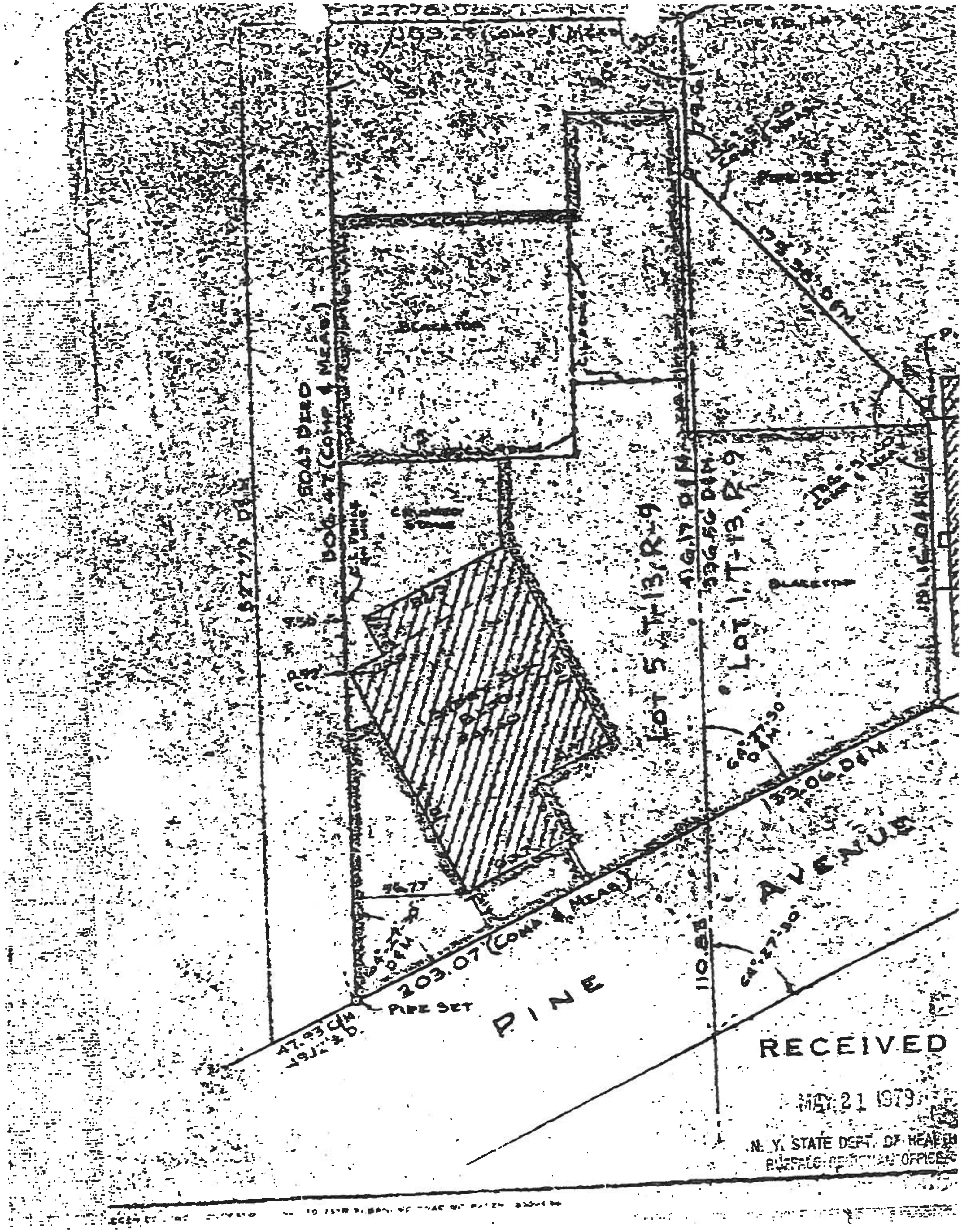
Pine Bowl



Numbers shown are in units of 1

5/23/79
Paul Hack

PINE AVENUE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LOT 1 T-13 R-9
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PIPE SET
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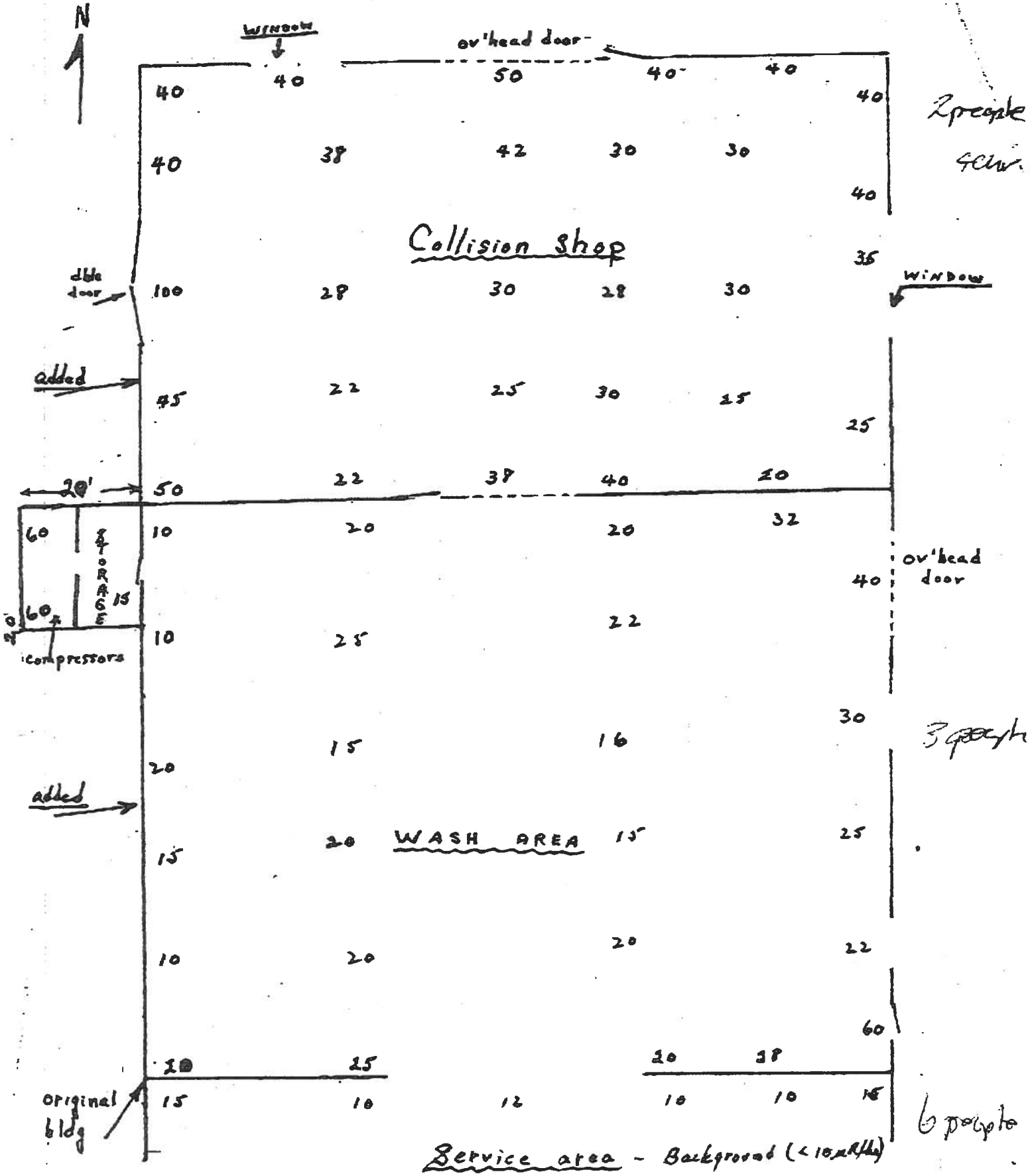
110.88
RECEIVED
MAY 21 1979
N. Y. STATE DEPT. OF HEALTH

SURVEY [illegible]

THOMAS BAIA PONTIAC

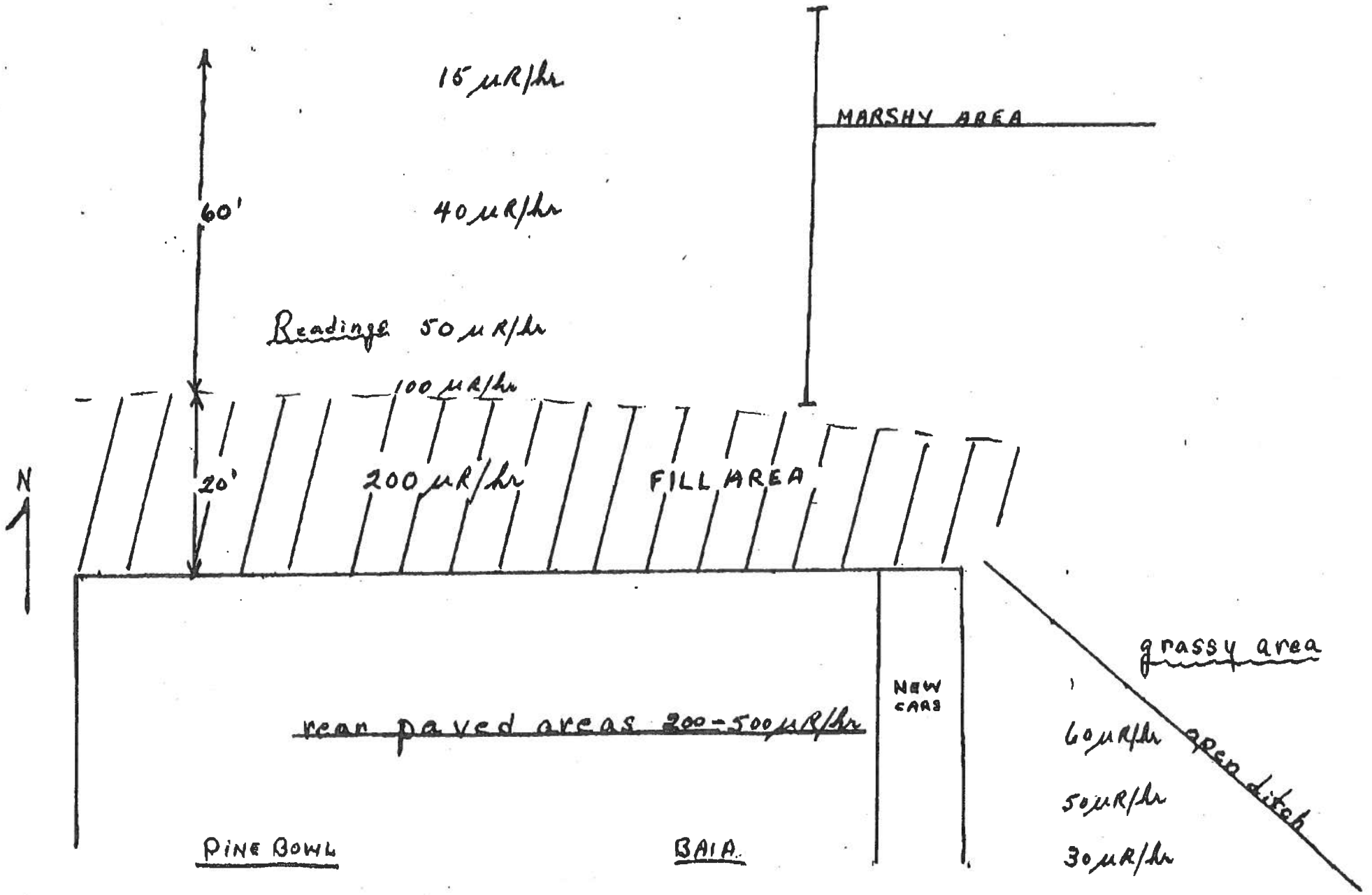
Thos. Baia - owner of agency

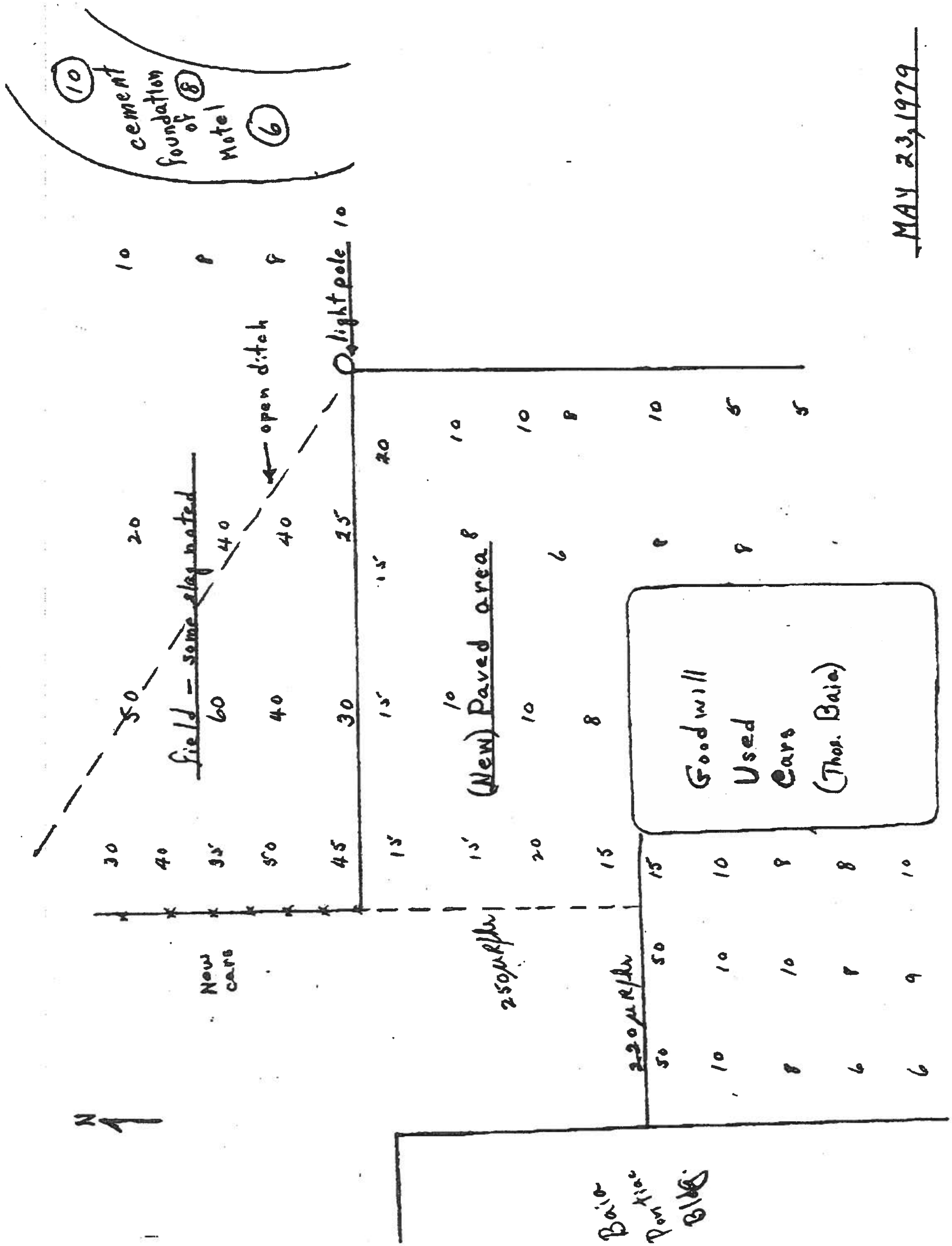
Frank Amendola - bldg owner



Service area - Background (< 10 mR/hr)

MAY 23, 1979




cement foundation of Motel
light pole
open ditch
Field – some slag noted
(New) Paved area
Goodwill Used Cars (Thos. Baio)
New cars
250 µR/hr
220 µR/hr
Baio Pontiac Bldg
N
MAY 23, 1979

File

Radioactivity in Niagara Falls

LOUW

Mr. Hovey
Mr. Kelleher - Radiation Section
Radioactivity in Niagara Falls Bowling Alley and Car Agency

May 31, 1979

On May 29, Mr. Davies informed me the Health Department's evaluation of the doses at this time indicates a worker at the Car Agency would receive 0.2 rems per year. This is less than the code limit of 0.5 rems.

The nursery at the bowling alley was not built on slag. The higher readings were at the edges and corner of the room. The nursery room is on the corner of the building.

An addition to the Car Agency was apparently built over the slag. Hence, a worker at the Agency receives the greatest yearly dose.

WJK:sl

cc: P. Berry
T. Cashman
J. Spagnoli
R. McManus

STATE OF NEW YORK
ENERGY OFFICE

AGENCY BUILDING 2
EMPIRE STATE PLAZA
ALBANY, NEW YORK 12223

JAMES L. LAROCCA
COMMISSIONER

May 24, 1979

TO: T. K. DeBoer

FROM: Jack Spath

SUBJECT: Uranium Ore Residues in Niagara Falls

During October - November 1978, at the request of the NYS Department of Health, the U.S. Department of Energy sponsored an aerial radiological survey of the Niagara Falls area. The survey, which was conducted by E. G. & G. Inc., identified 15 areas which exhibited either higher levels of radiation, or radioactive constituents not typical of the surrounding background. One of the areas identified was the parking lot of a bowling alley, the Pine Bowl Bowling Alley located at Pine Avenue and 97th Street in Niagara Falls. This area was identified by a follow-up ground survey team from Oak Ridge National Laboratory as having radiation levels 25 to 50 times normal background. Measurements taken in a pothole found in the area showed levels approximately 100 times background.

All areas identified in the survey are being investigated jointly by the New York State Departments of Health and Environmental Conservation. While most of these areas appear to be the result of slag from a discontinued phosphate milling operation, evidence indicates that the material found under the bowling alley parking lot is uranium and thorium bearing slag from the processing of niobium (columbium) ore at the Union Carbide Corporation facility, 47th Street, Niagara Falls. The niobium ore slag has sufficient uranium and thorium content to meet the "source" material definition making it a licensable radioactive material. In fact the Union Carbide facility has been licensed by the Atomic Energy Commission (now Nuclear Regulatory Commission) and subsequently by the New York State Department of Labor since 1961. It now appears that in 1961, prior to licensing, the slag was used as fill under the bowling alley parking lot.

A preliminary evaluation of the radiological health impact of the bowling alley parking lot by the staff of DEC and the Health Department indicate that the material should be removed to an appropriate disposal site. It is not clear who would be responsible for providing such remedial action if it is determined necessary. I am advised that the owner of the bowling alley has initiated or will be initiating legal action against

Union Carbide in this regard. It should be noted that burial of similar material by Union Carbide was approved by the State in 1965. The land where the slag was buried was subsequently sold with the State's approval and is now a secure sanitary landfill.

I will continue to monitor this matter closely and keep you advised of any significant developments. There does not appear to be a need for any further action on our part at this time.

✓cc: William J. Kelleher

15 (12/75)

New York State Department of Environmental Conservation

MEMORANDUM

FTC
Fill
Rad. in Niag. Falls area
2000

TO: Commissioner Flacke
FROM: Mr. Hovey 151
SUBJECT: Radioactivity in Niagara Falls

DATE: May 24, 1979

This summarizes the latest status of areas found with higher than normal radioactivity in Niagara Falls described in my memorandum of March 27, 1979. Except in one case, all of the areas with higher than normal background levels can be explained by natural radioactivity or the use of phosphate slag containing natural radioactivity for parking lots. There does not appear to be a significant problem with these areas because of the low occupancy factor and the radiation levels are only 2 to 7 times normal background.

The one exception is a large parking lot serving a bowling alley and an adjacent car agency. The lot is 25 to 50 times normal background. Levels range from 0.2 to 0.5 milliroentgens per hour (mr/hr). The Health Department has been evaluating the health hazard and to date has not taken a position that there is a violation of the code or there is a health hazard.

Today it was learned that the nursery room in the bowling alley has the highest levels of radiation within the building and that the Health Department is making an assessment of the health hazard. Since the nursery is occupied by children the Health Department may use 1/10th of the limits used for adults. It is possible that the Health Department may declare this a public health hazard.

Evidence to date indicates that the area was filled in with radioactive slag waste from a local industry in 1961. The slag was produced in the processing of ore to obtain niobium metal (also called columbium) which is not radioactive. The raw ore was high enough in natural uranium and thorium to require a license. A license was obtained by Union Carbide in 1961 from the old USAEC. A permit to bury the slag as radioactive waste was obtained in 1965 from the Health Department. Burials occurred from 1965 to 1972 including slag that was produced in 1961.

The responsibility of Union Carbide, if the slag fill did come from there, will be a legal matter. It may depend on when in 1961 Union Carbide became aware that a license was required. The ore was not being processed for nuclear fuel and they may not have initially recognized that a license and proper disposal were required.

cc: T. Cashman
P. Berry
E. Rich
R. McManus

File
Rad in Nia. Falls

5/22/79 - Niag. Falls

Bob said that Heald & O'Brien found 2 areas inside that were 100 µr/hr.

Bowling alley mens lockers

Pontiac Agency - Maintenance work area

May 15, 1979

Dr. Hetling - Director, Division of Environmental Health

Mr. Davies - Bureau of Radiological Health

Pine Bowl Parking Lot

The attached summary report with alternatives for dealing with the above background radiation levels in the Pine Bowl parking lot was prepared by Dr. Rimawi and his staff based upon information provided by W. O'Brien, Buffalo Regional Radiological Health Specialist, and the Radiological Sciences Laboratory.

The smoking data was extrapolated from data in a paper prepared for publication by Dr. Lawrence and Dr. Paulson of the New York State Department of Health Cancer Bureau.

I recommend that consideration be given to placing restrictions on the use of the parking lot or covering the parking lot with an equivalent of 1½ feet of compacted soil and placing restrictions on disturbance of the material. A foot and a half of compacted soil would reduce the radiation dose by a factor of more than 10.

Recommend that the Buffalo Regional Office explore the different alternatives with the property owner. Some liability may be involved.

Attachment

cc: Dr. Rimawi
Mr. O'Brien
Dr. Lawrence

PINE BOWL ALLEY

Introduction:

The Pine Bowl Alley parking lot was identified as having radiation levels exceeding natural background levels in an aerial survey conducted by the U.S. Department of Energy in March 1979.

On April 11, 1979, Mr. Robert Wozniak, Department of Environmental Conservation, and Mr. William O'Brien, Department of Health, measured radiation levels of 200 to 500 μr/hr at 1 meter (Attachment I).

A preliminary DL&R analysis of a piece of the aggregate material used in construction of the parking lot showed uranium, thorium, and radium at concentrations as follows:

^{238}U : 1010 ± 5% pCi/g = 3.0×10^{-3} gm ^{238}U/gm rock

^{232}Th : 840 ± 4% pCi/g = 7.6×10^{-3} gm ^{232}Th/gm rock

^{226}Ra : 205 ± 4% pCi/g

Regulatory Considerations:

Materials that contain less than .05 per cent by weight of U and/or Th are exempt from the regulatory requirements of Part 16 of the New York State Sanitary Code. Therefore, the combined concentration is equivalent to 21 times the exempt concentration.

Section 16.8 of Part 16 allows burial subject to specific conditions of up to 100 mCi of natural Th, 100 mCi natural U, or a combination of both elements. The calculated amount of material that could be buried without a permit is 5.4×10^4 kg or 54 metric tons which corresponds to a volume of 2.4×10^4 liters (8500 cubic feet). The total amount of material in the parking lot is expected to exceed this amount.

Based upon the above considerations, regulatory action would be required. This would entail either 1) issuance of a license to possess and/or transfer the material, 2) a permit to bury, or 3) an exemption from the regulatory requirements.

The U.S. Atomic Energy Commission, presently U.S. Nuclear Regulatory Commission, transferred regulatory authority over the storage, possession and use of by-product, source and special nuclear materials in quantities less than a critical mass on October 15, 1962. Thus the transfer of this material would have been subject to U.S. N.R.C. regulations prior to October 15, 1962 or the regulating authorities of the State Labor or State Health Department if it occurred after that date.

Risk Estimates:

Total number of employees in Pine Bowl and Baia Pontiac - 50 persons

Total number of bowlers - 2600 persons per year

Total person hour spent in the parking lot annually - 21,090 person-hours

Maximum measured exposure rate in the parking lot - 500 microroentgen per hour

Maximum total dose in one year - $21{,}090 \times 500 \times 10^{-6}$ = 10.5 person rem/year

Society's willingness to accept a risk level depends to a large degree on the source of the risk. Such a variation may be based on lack of knowledge of the comparative risks due to the various sources. The risk, for example, to a nonsmoker due to breathing in cigarette smoke in the bowling alley, may exceed the risk to that person due to radiation received in the parking lot. These risks are compared in Table II.

Conclusion:

Any radiation exposure is undesirable, regardless of how small it may be. On the other hand, the BEIR Committee states:

> "The public must be protected from radiation but not to the extent that the degree of protection provided results in the substitution of a worse hazard for the radiation avoided. Additionally there should not be attempted the reduction of small risks even further at the cost of large sums of money that spent otherwise, would clearly produce greater benefit."

Thus realizing that man cannot achieve a zero risk state, the benefit of removing (or covering) the material needs to be weighed against the costs of these operations and the risks involved in the process of removal and transport of the material.

This analysis does not consider risks due to exposures inside the buildings both from external exposure or from radon emanation. Preliminary indications indicate that the radiation levels inside the building are less than those measured outside. Sensitive instrumentation was not used for measuring levels inside the building.

Additional information is still required relating to estimated dollar costs of the various alternatives.

The perceived risk due to radiation may far exceed the actual risk, and if this assumption is correct education of the public is indicated.

Table I

ℜNATIVE ACTIONS

Engineering and Cost	Comments
None.	Concentration of radioactive material exceeds the levels exempted from licensure under Part 16. Measured exposure levels in the parking lot range from 0.2 to 0.5 mr/hr. The maximum calculates to be 4368 mr per year. Part 16 limits the dose to 500 mrem/yr. as the maximum the general public may receive. It is unlikely that an individual will spend sufficient time in the parking lot to receive a dose of 500 mrem in one year (average 19 hours per week). However, there are no restrictions to prevent an individual from doing so. The maximum estimated dose received annually by two employees is 75 mrem per person. Estimates of dose due to radon in the buildings should be obtained. Radon emanation rate from rock is being measured at the Radiological Sciences Lab.
a) Cost of inspecting and maintaining surface. b) Regulatory agency needs to enforce Commissioner's recommendation or order through surveys and enforcement action, if needed.	The Commissioner's recommendation/order needs to take in consideration the long range use of the site which may involve a change in its use. The restriction should be unlimited in time and should stipulate that the land could not be used for a purpose that is likely to lead to a dose to any individual exceeding 170 mrem/ year such as parking and living in recreational vans.
a) Covering the surface and maintaining the integrity of the cover. b) Regulatory agency monitoring the surface condition.	The problem of the long range use of the site will not be solved. The integrity of the covering material needs to be maintained. Thus continued monitoring will be required. The depth of the layer needed will depend upon the material used and the exposure level that is acceptable. The cost of such an action should be considered in the determination of the "acceptable" exposure level. If the total annual dose of 170 mrem cannot be achieved through such an action, additional restrictions on occupancy of the site will be required.

Engineering and Cost	Comments
	While the risk due to breathing of dust particles containing the radioactive mateiral is expected to be small, it could be comparable to the risk from external exposure.
a) Cost of removal, transportation and disposal. Disposal site radiological monitoring. Regulatory agency licensing and control. b) As a) above with reduction of cost of transportation and disposal. Perpetual care required by either alternative a) or b). Cost estimate to load on trucks $100,000 to $200,000	Four disposal alternatives might be considered: a) Return to the site where the material originated; b) Bury on the existing land; c) Bury at a State controlled land fill; or d) Ship material to a licensed radioactive material commercial disposal site. Relative cost in increasing order are b), a), c), and d).

Appendix

Basis for Risk Estimates

Radiological Risk Calculations:

The risk calculations given in this report were based on the report of the National Academy of Sciences - National Research Council Advisory Committee on the Biological Effects of Ionizing Radiation (BEIR Committee). In this report, the health effects resulting from exposure to low radiation levels were obtained by extrapolating known effects resulting from high-level exposures. The sources of such data included observed radiation effects on the survivors of Hiroshima and Nagasaki, fallout exposure from the H-bomb test at Bikini, Radiologists, luminous dial painters, uranium miners, and patients who have undergone radiation therapy treatment. Some effects were extrapolated from observation of radiation effects on animals.

In extrapolating the data to low-level radiation, a no threshold straight line assumption was made. The validity of such extrapolations is questionable. In its 1979 report, the BEIR Committee states:

> "The Committee cautions that the risk estimates presented here should in no way be interpreted as precise numerical expectations. They are based on incomplete data and involve a large degree of uncertainty, especially when applied to interpretation of health effects of low doses. These estimates may well change as new information becomes available."

The exposure level used in calculating the estimated risk to persons frequenting Pine Bowl parking lot was assumed to be 500 μr/hr (Attachment I). By using the 500 μr/hr rate in the calculation rather than an average value, the calculation overestimates the risk.

The occupancy time in person-hours per year was calculated from a breakdown of the number of employees and bowlers and the estimated time they spend in the parking lot (Attachment II). All employees of Pine Bowl and Baia Pontiac were assumed to spend 3 hours per week in the parking lot. This assumption leads to an overestimate of the risk.

The estimate of 394,480 cancer deaths in the United States in 1978 was supplied by the Bureau of Cancer Control, N.Y.S. Health Department.

Calculation of Risk from Smoke:

This calculation is based on a paper by C.E. Lawrence and A.S. Paulson. For the estimates given in this report, a risk level of 10^{-5} was used. It was assumed in deriving the numbers in the table that a person present in a smoke filled room breaths in cigarette smoke in one hour that is equivalent to smoking 0.2 cigarette.

In estimating the number of hours spent in the parking lot that would lead to a risk equivalent to smoking one ciragette per day, the lowest risk estimate for cigarettes was combined with the highest risk estimate for radiation, thus resulting in a lower limit for the number of hours.

Attachment I
State of New York
DEPARTMENT OF HEALTH
OFFICE OF PUBLIC HEALTH SERVICES

M E M O R A N D U M

April 13, 1979

To: Dr. John Matuszek - Division of Laboratories and Research

From: William J. O'Brien - Buffalo Area Office

Subject: Samples of Asphalt Base at Pine Bowl, 9524 Pine Avenue, Niagara Falls, New York

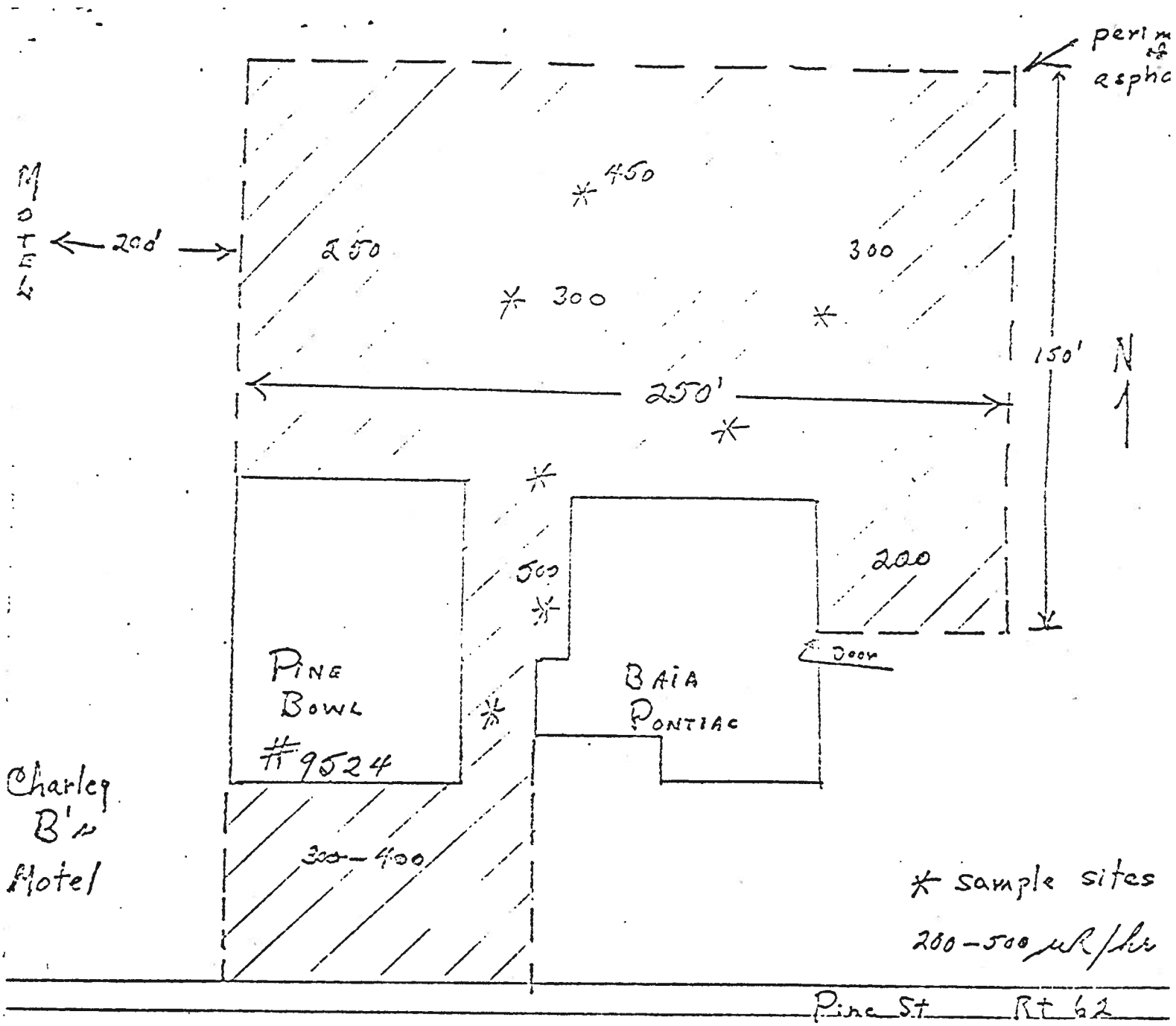
On Wednesday, April 11, 1979, Robert Wozniak and I surveyed the paved area around this bowling building. We took rock samples from all areas. The dark rocks have some blue coloration and are generally the size of #1 slag. Levels varied from 200-500μR/hr measured at 1 meter height with a scintillation meter. Rocks were sent 4/12/79.

The attached sketch shows the details of the site.

WJO'B/ki
Att.

cc: Sherwood Davies, Director - Bureau of Radiological Health
Dr. Campbell, Regional Health Director

I have a couple for souvenirs - a 200 - 250 μR/hr level



Y survey April 11, 1979 Robt Wozniak DEC
Wm J. O'Brien Health Dept

1979 report

PINE I 2WL PARKING LOT ROCK 400 MIN.

SAMPLE # 590019
TYPE ROCK
VOLUME 56.381g
GEOMETRY 25 ml

COLLECTION DATE 3-27-79 8?
COUNTING DATE 4-2-79 10
LENGTH OF COUNT 400 sec
ANALYST MV

Peak Channel	Energy Kev	Nuclide	Gross cpm	Bkg. cpm	Net cpm	Results pCi/g
		^{235}U				1.01 E-1 ± 5%
		^{232}Th				8.4 E-1 ± 4%
		^{226}Ra				2.05 E-1 ± 11%
		~~^{232}Th~~				~~[illegible]~~
		^{40}K				9 E-1 ± 2%

835 KeV LINE USED FOR THIS DETERMINATION IS ALSO PRESENT IN THE SPECTRUMS OF THE TWO SMALL SLICE SAMPLES OF 590019. I HAVE ALL OF THE SPECTRUMS. MV

$840 \times 10^{-12} \times 10^{7} = 10^{-5}$

RECEIVED
MAY 7 1979
N. Y. STATE DEPT. OF HEALTH
BUFFALO REGIONAL OFFICE

State of New York
DEPARTMENT OF HEALTH
OFFICE OF PUBLIC HEALTH SERVICES

M E M O R A N D U M

May 7, 1979

To: Sherwood Davies, Director - Bureau of Radiological Health

From: William J. O'Brien - Buffalo Area Office

Subject: Slag - Niagara Falls
Pine Bowl Alleys and Baia Pontiac

On Saturday, May 5, 1979 at 8:30 a.m., I conferred with the following at the above site:

1) Arthur Gellman - Attorney for Conbow Corp. and Pine Bowl (297-0550)
2) Richard Ackerson - Vice-President, Pine Bowl (297-4700)
3) Michael Kunutz - Manager, Pine Bowl (297-4595)
(Paul Haas is the President)
4) Thomas Baia - Owner, Baia Pontiac
Buffalo #695-1077; Niagara Falls #297-1700

I briefed them on background radiation to allay their fears of imminent death or cancers. They were really "uptight" due to a "gloom and doom" admonition presented by another regulatory agency. In fact, they were ready to shut the place down! After putting their problem in a more realistic perspective, I told them that we are gathering data to be used for a determination of the health hazard and that this will be based on laboratory analyses, radiation measurements, use of the property, and other applicable parameters.

Employees - Pine Bowl: 22
Baia Pontiac: 28

Bowlers -	Winter	Summer	Open
	2000/wk	200/wk	400/wk
	Sept.-March	May-August	Jan.-March

Trailers, RV's, Vans - None have been allowed to park here nor will be

Prospective Tournaments - None planned. In fact, they're holding up all proposed activities

Findings:

1) There are about four areas that need resurfacing.

2) Longest estimated paved area stay time --

a) Pontiac lot man - ½ hr/day x6 days = 3 hrs/wk
b) Pine Bowl clean-up man - ½ hr/day x6 days = 3 hrs/wk
c) Any bowler in winter league - 1/6 hr/wk
d) Any bowler in summer league - 1/4 hr/wk

NOTE: These are estimates of longest stay times.

3) Depth of slag varies probably from inches in front to a foot or more in the rear where it is marshy.

4) Total area involved will be determined by surveyor's plot which I will get soon.

5) A. Gellman is trying to backtrack to get construction details. They didn't build the structure.

6) T. Baia said customers roam around out front, not in rear.

7) Those involved have a need to know the problem and its effects on them. This means explaining radiation to them at their levels.

Recommendations:

1) Repair paved area BUT KEEP SLAG ON SITE.

2) Continue backtracking to determine origin of slag.

3) Analyze laboratory data for concentrations.

4) Determine best estimate of exposure.

5) Make a decision as to hazard.

6) Implement the decision.

WJO'B/ki

cc: Karim Rimawi - Bureau of Radiological Health
Dr. Campbell, Regional Health Director
Mr. Violanti, Regional Director of P.H. Engineering

Thomas Cashman
William Kelleher - Radiation Section
Areas of Higher Than Normal Background in Niagara County

April 30, 1979

On April 26 Mr. Wozniak and I took radiation measurements at three locations and obtained the following:

Readings were taken at the bowling alley to compare the pressurized ionization chamber (RS111) with a scintillation detector (GEC Elliott - type 1597A). The comparisons were:

PIC	GEC-Elliott	Ratio GEC/PIC
227 µr/hr	262 µr/hr	1.15
449 µr/hr	490 µr/hr	1.09

It was concluded that the scintillation detector would give a satisfactory indication of exposure for this situation.

Mr. Wozniak identified the radiation at Buffalo and Portage Streets in Niagara Falls City as being caused by phosphate slag. It is in an old parking lot 70'x200'. An electric transmission tower is on the old lot. The readings over the lot varied between 40 to 60 µr/hr.

The radiation at Our Lady of Fatima Shrine (Barnabite Fathers) was caused by a large unpaved parking lot that had a mixture of stones and phosphate slag. The radiation levels varied between 20-30 µr/hr and depended on the amount of slag mixed in with the stone.

WJK:sl

cc: R. Wozniak
W. O'Brien
S. Davies
J. Matuszek
J. Spagnoli
T. DeBoer

Mr. Cashman
Bur of Radiation
H.P.
W.K.
File
Niagara Falls Survey

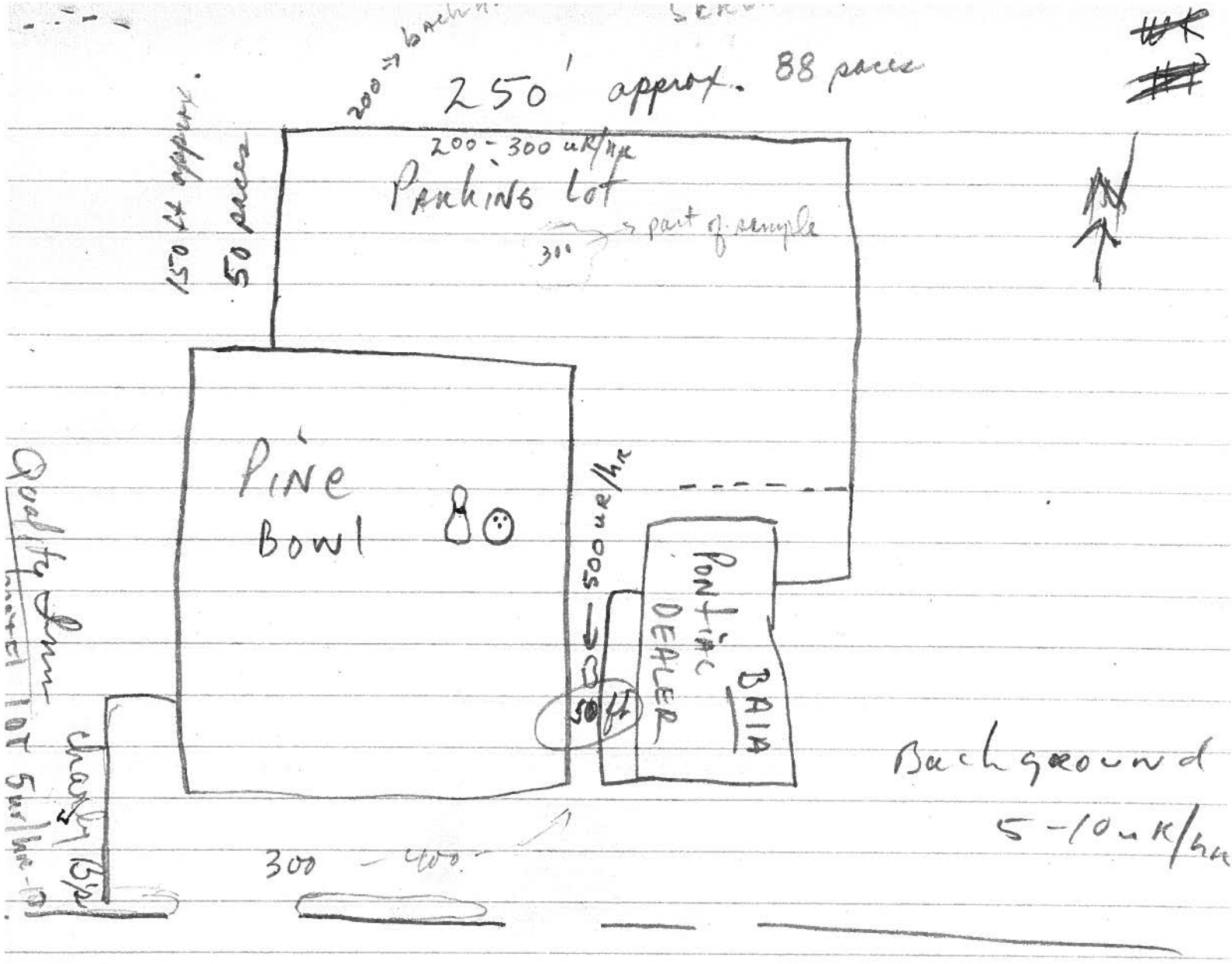
Mr. Spagnoli
Mr. Wozniak
Radiation Survey on Pine Bowl and Bain Pontiac Parking Lots, Niagara Falls (C)
April 20, 1979

Per your request, Peter Burke and the writer met Paul E. Haas, President of Consolidated Bowling. We presented him with the data we had on the parking lot at the Pine Bowl bowling alley and Bain Pontiac located at 9524 Pine Avenue. Mr. Haas did not know who installed the parking lot, but did say that he would assist in finding who the contractor was. He said he will try to contact Isaac Frishman of Lakewood, NJ, the original owner of the building, to obtain the contractor's name. Several telephone calls to the Major Blacktop contractors in Niagara Falls resulted in no information. The building was built in April of 1962 and all the files on the bowling alley did not go back that far.

Permission was obtained from Mr. Haas to survey the inside of the bowling alley. Readings were taken with a gamma sintillation counter at one meter and all readings were between 5-15 uR/hr.

RCW:ec

cc: Messrs Cashman, Violanti, O'Brien, Burke, McMahon



Blue tinted rocks used for the base of parking lot are definitely the source

150 μR/hr bag of 4 rocks @ contact

Tom,

I thought I'd send you a hot rock from the Pine Bowl parking lot. The accompanying ~~sheet~~ sheet should have all the pertinent information

Bob

4/12/79

0600 hrs

P.S. Note blue streaks in rocks, rocks with out blue were background

Pine Bowling
4-11-79

Baia Pontiac
Pine Ave.

~~F.G.~~ ~~H.P.~~ File 7/30/79

W.

Told Bob it was all right to lend Bill O'Brien the Baird Atomic. Bill is to check Bowling Alley, Cemetary Lady of Fatima shrine. Bob will ask Bill for data (urgent) on the 3 locations, a sample of the rock at the Bowling Alley. Bob will show rock to John Beecher to see if he recognizes it.

Bill

File
Niag Falls
Survey
on L. Ont

STATE OF NEW YORK
ENERGY OFFICE

JAMES L. LAROCCA
COMMISSIONER

AGENCY BUILDING 2
EMPIRE STATE PLAZA
ALBANY, NEW YORK 12223

May 16, 1979

TO: Dr. Francis J. Bradley
Thomas J. Cashman
Sherwood Davies
Thomas Maguire
Dr. John Matuszek
Dr. William E. Mott

FROM: John P. Spath John P. Spath

SUBJECT: Summary of NYS/DOE Meeting of March 26, 1979

On March 26, 1979 representatives of the cognizant New York State radiation control agencies met with representatives of the U.S. Department of Energy and its contractor, E. G. & G. Inc., to review results of aerial radiological surveys of the Niagara Falls region and the Lake Ontario Ordinance Works site. The meeting also reviewed the evaluation of and proposals for reduction of radon emanations from the DOE Niagara Falls Site, and alternatives being considered for ultimate disposition of the site.

Based on a joint review by Tom Cashman, NYSDEC, and myself of our notes of that meeting, the enclosed draft summary was prepared. In addition, the information presented at the meeting on the survey of the Niagara Falls area was recently reviewed with Tom Maguire of E. G. & G. Inc. to upgrade the quality of the notes and to ensure completeness and accuracy in the summary.

I would appreciate receiving any comments you may have on the draft summary by June 1, 1979. If you have any questions regarding this matter, please call me.

JPS/plc
Enclosure

cc: Ira Garelick w/enclosure
Goldie Watkins w/enclosure
John McMahon w/enclosure

D R A F T

MEETING: Cognizant New York State Radiation Control Agencies/ U. S. DOE Environmental Control Technology Division

DATE: March 26, 1979

PLACE: Offices of New York State Department of Environmental Conservation, 50 Wolf Road, Albany, NY

SUBJECT: Review the U.S. DOE sponsored aerial radiological surveys of the Niagara Falls area and the former Lake Ontario Ordinance Works.
Review U.S. DOE efforts for reducing radon-222 emanations from its Niagara Falls Site and investigations into alternatives for disposition of the site. See attached agenda.

ATTENDEES: See attached list.

SUMMARY

At the request of the New York State Energy Office which organized the meeting, Mr. Thomas Cashman of the NYS Department of Environmental Conservation chaired the discussions which were generally informal in character. Although the agenda was not strictly adhered to, an attempt has been made to correlate the summary with the agenda.

Item I: Aerial Radiological Survey of Niagara Falls Area

Mr. Thomas Maguire described the equipment and procedures which were used in E. G. & G. Inc.'s aerial radiological survey of an approximately 170 square mile area ranging from Lake Ontario to Buffalo along the Niagara River. The survey was conducted during October-November 1978 at the request of DOE. Its purpose was to detect any areas showing elevated radiation levels.

The survey was conducted with a fixed wing aircraft (King Air) at an altitude of 500 feet. The aircraft followed a series of north-south flight lines with a 1/4 mile spacing. The aerial survey identifies gross gamma count

rates greater than background and can identify, via spectral analysis, gamma emitting nuclides not typical for the natural background in the area. Although the survey provides only a gross look at the radiological character of the area, it is sufficiently sensitive to detect levels as low as twice background over a large area.

The aerial survey identified 4 general areas with a total of 15 specific ~~areas~~ sites that have either gamma count rates in excess of background or gamma spectral shifts. DOE subsequently dispatched a survey team from Oak Ridge National Laboratory to drive through or as close to the identified areas as possible with a vehicle-mounted survey instrument to try to more specifically ascertain the nature and source of the radiation detected. The preliminary results of the aerial survey and the follow-up ground survey are described in the attached table. It should be noted that no anomolies were identified in the Love Canal area or at the Union Carbide-Linde facility, both of which are located in the survey area.

Refer to State measure 1 rad at Love Canal

DOE believes that increased radiation levels at most of the sites identified resulted from phosphate ore slag from a retired phosphate processing facility identified as "Olbsberry". DOE does not believe that any of the areas identified resulted from materials stored at the former Lake Ontario Ordinance Works or from facilities associated with the Manhattan Engineering District Project (i.e. Ashland Oil Company, Seaway Industrial Park, Union Carbide-Linde), except for the Ashland & Seaway sites. DOE indicated that it would formally present the survey findings to the State when finalized. It was agreed that such a report should be directed to Dr. Axelrod, the NYS Health Commissioner, since it was the Health Department which had originally requested DOE to

perform the survey. Copies will also be provided to the NYS Department of Environmental Conservation (Tom Cashman), for information and to the NYS Energy Office (Ted DeBoer) for distribution to other cognizant State agencies.

Item II: Aerial Survey of the Lake Ontario Ordinance Works (LOOW)

Mr. Maguire described the equipment and procedures used in the aerial radiological survey of the former LOOW which includes the existing DOE Niagara Falls Site. The survey was conducted in October - November 1978 and a "Summary Report" of the results was subsequently provided to the State by DOE. Without going into detail, it is worthwhile noting that the survey was conducted at low altitude (i.e. 150 ft.) by use of a specially equipped helicopter. The results were reported as relative radiation levels in terms of multiples of background counting rates. The sensitivity of the system was described as about 2 microroentgen/hour above background (i.e. about 20% of background). In addition to the known areas of elevated radiation levels associated with stored radioactive residues on the DOE site, elevated levels were found for about one mile along a drainage path leading north and in an isolated area about 1.5 miles southwest of LOOW along Swann Road. ~~That~~ The latter area is associated with Our Lady of Fatima Shrine.

DOE noted that it is tentatively planning an extensive ground survey of the entire LOOW area including property already "excessed". DOE is still waiting for the U.S. EPA standard for radium in soil which is now expected about November of 1979. The EPA standard is anticipated to be about 5 picocuries/gram inclusive of background.

DOE also indicated tentative plans to conduct, possibly this spring, a similar aerial survey (i.e. helicopter) of the corridor between the Union Carbide-Linde facility and the Ashland Oil Company/Seaway Industrial Park complex.

Item III: Reduction of Radon Emissions at the DOE Niagara Falls Site

DOE indicated that in conjunction with National Lead of Ohio, its contract operator of the Niagara Falls Site, and with its Oak Ridge Operations Office, it was reviewing various possible remedial actions to reduce radon emanations. It noted that a primary consideration in evaluating alternatives was the minimization of the volume of contaminated material which would ultimately have to be disposed. Among the options being considered are the use of an impermeable membrane with an 8 - 10 foot cover of clay, and a layer of sand topped by a 1/2" asphalt emulsion. It is anticipated that if asphalt is used, it may crack and periodically have to be retreated. It was noted that NRC was suggesting for uranium mill-tailings a cover of 10 feet of soil topped by two feet of clay. DOE indicated it expects to finalize its plans and initiate remedial action this spring starting with the externally stored residues (i.e. R10/Spoil Pile). New York requested the opportunity to review DOE's final plans prior to implementation. DOE agreed. Mr. Davies suggested that DOE consider the potential for ground water contamination that might result from the buildup of radon daughters (principally Lead-210) from any planned remedial action. Mr. Cashman suggested that DOE review the potential ground water contamination from water covering residues in Building 411.

Item IV: Alternatives for Decommissioning the Niagara Falls Site

There was no detailed discussion of this item. It was noted that DOE had provided a document entitled "Scoping Investigation of Alternative Methods for Disposal of Radiaoctive Residues Stored at the DOE-Niagara Falls Site", dated September 1978, to the New York State Department of Environmental Conservation and that it would provide additional copies to the State Energy Office for distribution to other interested New York agencies. (Note: As of the drafting of this summary, copies have been received from DOE and redistributed to the NYS Departments of Health, Labor and Law.)

Item V: African Metals

It was noted that both ~~DEC and~~ the New York State Departments of Labor and Environmental Conservation have advised African Metals of the necessity to control radon emissions from residues it owns and stores at the DOE Niagara Falls Site. The DOE common site approach to monitoring radon emissions and plans for initial action this spring on the external spoils pile ~~was~~ were considered a reasonable and valid response in this regard.

Item VI: DOE Niagara Falls Site - Radon Flux Measurements and FBDU Report

Mr. Cashman requested DOE to provide the State a complete set of radon flux measurements for the Niagara Falls Site and a copy of the "Report by Ford, Bacon Davis Utah - Reduction of Radon Releases at the DOE Niagara Falls Site" both of which were cited in the memorandum dated December 21, 1978 from Charles A. Keller, DOE, Oak Ridge Operations, to William E. Mott, DOE, Environmental Control Technology Division.

Closing

In closing the meeting, Dr. Mott suggested that, due to the continuing and mutual DOE/NYS interest in the matters discussed, it would be appropriate to meet on a regular basis (i.e. about every two months) to review progress and discuss concerns. The New York representatives endorsed the suggestion.

DOE SPONSORED RADIOLOGICAL SURVEY OF THE
NIAGARA FALLS REGION

Preliminary Results Reported to NYS
in Meeting with DOE on March 26, 1979

Sites Identified by E. G. & G. Inc. Aerial Survey	FINDINGS OF OAK RIDGE GROUND SURVEY	
	Radiation Levels	Description
General Area I - Near PASNY Hydro-Electric Plant		
1. Lewiston Heights in vicinity of Niagara Falls Country Club	2-4xBG	Asphalt driveways
2. Holy Trinity and Riverdale Cemeteries	4-6xBG	Possibly granite grave markers
3. Industrial area south of Niagara University	3-6xBG	Over roadways
4. DeVeaux Campus of Niagara University	ND	
General Area II - South Niagara Falls		
5. Industrial area - Buffalo Ave. at Portage Rd.	7xBG	Asphalt area
6. Hooker Industrial Complex - Buffalo Ave. and 53rd St.	2xBG	Employee parking lot
7. 66th Street School	-	Previously surveyed and reported by DOE and NYSDH DEC?
General Area III - Near Niagara Falls International Airport		
8. Pine Bowl Powling Alley - Pine Ave. and 97th St. (showed high thorium content)	25-50xBG (100 x BG)	Asphalt parking lot (in pothole)

Sites Identified by E. G. & G. Inc. Aerial Survey	FINDINGS OF OAK RIDGE GROUND SURVEY	
	Radiation Levels	Description
9. Industrial area east of Airport*	—	* Areas inaccessible to ground survey. E.G. & G. Inc. noted that the areas were not necessarily identified as above background, but rather could have exhibited differences in gamma spectrum from typical area background.
10. Niagara Falls International Airport*		
11. Niagara Falls Air Force Base*		
12. Area east of Air Force Base*		
General Area IV - Grand Island and Tonowanda		
13. Grand Island High School	-	No gamma levels above background in accessible areas. Athletic field was inaccessible.
14. River Oaks Golf Course	-	Area inaccessible to ground survey. Heavy fertilization postulated.
15. Ashland Oil Co. and Seaway Industrial Park - Tonawanda	-	Previously surveyed and reported by DOE.

LIST OF ATTENDEES

NAME	AFFILIATION
William E. Mott	U.S. Department of Energy
Robert Ramsey	U.S. Department of Energy
Thomas C. Maguire	E. G. & G. Inc.
Sherwood Davies	NYS Department of Health
John M. Matuszek	NYS Department of Health
William J. O'Brien	NYS Department of Health
Thomas J. Cashman	NYS Department of Environmental Conservation
William J. Kelleher	NYS Dept. of Environmental Conservation
Harvey Prins	NYS Dept. of Environmental Conservation
John McMahon	NYS Dept. of Environmental Conservation
Francis J. Bradley	NYS Department of Labor
Ira Garelick	U.S. Environmental Protection Agency
John P. Spath	NYS Energy Office

Meeting of State Agencies with DOE

March 26, 1979

AGENDA

1. Report on overflight of Niagara Falls area.

2. Report on overflight of LOOW site.

3. Review of DOE recommendations and schedule for radon emission abatement at LOOW.

   a) asphalt emulsion cover - effect on future chemical processing of waste.
   b) impermeable barrier plus several feet of soil cover.
   c) potential groundwater contamination from L-30 residues stored in concrete tanks inside building 411.

4. Review of DOE's six alternatives for decommissioning the site.

5. Status of DOE's discussion with African Metals.

   a) common approach to method of abating emissions.
   b) potential change in ownership of African Metals residues prior to or at end of storage agreement in 1983.

6. Availability of complete set of radon flux measurements and the FBDU report.

7. Need for DOE response to DEC letter regarding permit for radon emissions.

8. Other items of interest to State Agencies.

TJC:sl
3/26/79

15 (12/75)

New York State Department of Environmental Conservation

MEMORANDUM

File
Love Canal

file
1. - Love Canal
new files
1. Fair Bowling alley
2. Our Lady of Fatima Shrine
3. Fir, Fur + Feather Club

TO: Commissioner Flacke
FROM: Mr. Hovey /s/ D-Barolo
SUBJECT: Elevated Levels of Radioactivity in Niagara Falls

DATE: March 27, 1979

The Department of Energy (DOE) overflights in the Niagara Falls and Lake Ontario Ordnance Works (LOOW) areas have identified previously unknown locations with radiation levels running 3 to 7 times background. There was one area involving an asphalt parking lot at a bowling arena that was 25 to 50 times background radiation. Other areas included industrial areas, schools, a golf course and a cemetery. The overflight did not pick up the known radiation levels of 2 to 5 times background at the Love Canal based on the preliminary information provided by DOE.

It is believed that the probable source of this radioactivity is natural radioactive material such as the calcium silicate slag from a phosphate plant that is no longer in operation. Other natural radioactive material sources could involve the granite stones at the cemetery and fertilizer on the golf course.

The DOE overflight at the LOOW site generally confirmed previous information on the extent of contamination off site. There were two small areas south of the site that had not been previously identified as contaminated areas. The LOOW overflight did detect unexpected radioactivity at the nearby Our Lady of Fatima Shrine with readings on the property up to 3 to 4 times background.

Dr. Mott presented this preliminary information to representatives of State Agencies on March 26. Dr. Mott will be meeting with the Citizens Oversight Committee for the Lake Ontario Ordnance Works site this Friday. He anticipates questions being asked in regard to the DOE overflights. The DOE overflights were made in response to a letter from Commissioner Whalen to Secretary Schlesinger. Dr. Mott was advised at the March 26 meeting that the DOE preliminary report should be sent to the present Health Department Commissioner Dr. Axelrod.

Since the observed high levels of radioactivity were apparently coming from natural radioactivity DOE expects the State to take any necessary follow-up action. Following the meeting with DOE, the members of the State Agencies agreed that it would be very important to have a clearly identified lead agency with a primary spokesman to direct the State efforts and to respond to inquiries from the public. A Task Force approach to utilize the capabilities of the several agencies should be considered. The Health Department would appear to be the appropriate lead agency with DEC and Labor Department providing support as requested. You may wish to confirm this approach with Dr. Axelrod.

cc: Messrs. Lanahan, Rich, McManus & Cashman & Dr. Haag

Lou Cochman

FOR YOUR Info

Jack Spath

Date: 1/24/79

File LOOW

Department of Energy
Washington, D.C. 20545

JAN 19 1979

RECEIVED

JAN 24 1979

N.Y.S. ENERGY OFFICE
ALBANY, NEW YORK

Mr. Thomas Lyons, Associate
Environmental Analyst
New York State Parks & Recreation
Agency Building 1
Empire State Plaza
Albany, New York 12238

Dear Mr. Lyons:

In response to your request of December 4, 1978, regarding the recent Department of Energy aerial radioactive survey of the Western New York State area near Buffalo and Niagara Falls, the results of this survey will be published and should be available for distribution around the end of February. Copies will be sent to you for your information at that time.

This aerial survey was conducted to enable the DOE to determine whether any unknown locations in that 170 square mile area contained radioactivity above natural background levels. During the 1940-1950 time frame there were several contract operations being conducted for the Manhattan Engineer District and its successor, the Atomic Energy Commission. Records reviews have identified all of these formerly utilized facilities, but the records were not considered to be as complete as desired in regard to locations that may have been used for disposal of radioactive wastes. This aerial survey was conducted to enable the DOE to identify any suspected areas containing radioactivity above background levels. Any such areas identified will be further surveyed by ground radiological survey teams.

This office will keep you informed of our findings as they are completed. We have been coordinating all DOE radiological efforts with Mr. Jack Spath, State of New York Energy Office, Albany, NY. You may wish to contact him in regard to our previous activities in the Western New York State area.

Sincerely,

William E. Mott

William E. Mott, Acting Director
Division of Environmental
Control Technology

cc: Jack Spath, State of New York
Energy Office

May 28, 1965

Mr. A. H. Soeder
Superintendent, Operations
Union Carbide Corporation
P. O. Box 596
137-47 Street
Niagara Falls, New York

Reference: Exemption Burial

Dear Mr. Soeder:

We have carefully reviewed your letter of request, dated April 8, 1965, together with a submittal entitled, "Answers to Health Department Checklist Questions" as they relate to the burial of slag material containing uranium oxide (U_3O_8) and thorium oxide (ThO_2). According to this information, you propose to immediately bury approximately 1250 pounds of uranium oxide contained in 250 tons of slag. A second burial is proposed to be made of slag containing approximately 625 pounds of thorium oxide in 50,000 pounds of slag. In the future, it is proposed to bury 100,000 pounds per month of slag containing about 1250 pounds of thorium oxide. The site of the burial grounds covers an area of 540 feet by 1500 feet, located just North of Pine Avenue Boulevard, between Packard Road and 64th Street in the city of Niagara Falls, Niagara County, New York.

An exemption to the provisions of Section 16.8 of Part 16 of the State Sanitary Code, is hereby granted with respect to the total quantity of radioactive material that may be buried at any one time, in any one location and with respect to the frequency of burials. This exemption is granted on the condition that Union Carbide inform the Niagara County Department of Health of certain information including the amount of radioactive materials, the location of burial, and the content of radioactivity in the materials. Further, permanent markers shall be established locating the boundaries of the burial site.

If it becomes the intent of the company to sell the property on which the site is located, it will be necessary to meet the

requirements of Section 16.10, paragraph B. This section requires that a survey be made before the property is turned over to the new owner. A copy of the report of the survey shall be provided this Department, the local health officer having jurisdiction and the subsequent tenant.

Prior to negotiation of a contract for sale, lease or other transfer of any parcel of property designated as a disposal area and exempted from the provision of Section 16.8 of the Sanitary Code of the State of New York (10 NYCRR 16.8), the Corporation shall file in the office of the clerk of the County of Niagara in the Book of Covenants, Restrictions, Trusts and Forms, a form stating the period during which burials of radioactive waste have occurred together with the total amount of each radioisotope buried as waste.

Based upon this Department's findings, this burial operation can safely be maintained without causing an undue health hazard.

Very truly yours,

Sherwood Davies, P.E.
Director, Bureau of
Radiological Health Services

cc: Niagara City Health Department
Buffalo Regional Health Department
Chrono
File

AR/jw

New York State Department of Health
Division of Environmental Health Services
Bureau of Radiological Health Services
84 Holland Avenue
Albany, New York

STATEMENT

Union Carbide Request For Burial Exemption

June 3, 1965

This Department has issued an Exemption to the Union Carbide Corporation for the burial of Uranium and Thorium compounds resulting from the processing of certain ores at their plant in Niagara Falls, New York. Their request has been received in the form of a letter dated April 8, 1965, together with a later submittal entitled, "Answers to Health Department Checklist Questions." A memorandum dated May 10, 1965, has been received from Mr. Seebald of Niagara County Health Department stating that, in his opinion, there will be no undue exposure to plant, human or animal life in the disposal area. Based upon these submittals, this Department concurred no public health hazard should, at any time in the future, result by the disposal of such wastes as described in the submittals.

The Thorium Oxide proposed to be buried each month, once production is started, exceeds the exempt quantities specified in the Code by approximately .013 curies per burial. If the entire site set aside for this burial is utilized, the activity present will be less than 2 orders of magnitude above that which is present naturally. The 4 feet of cover over these wastes will provide sufficient shielding so no surface exposures will be higher than natural background. The migration of activity from the site will be minimal due to the inertness and insoluble characteristics of the slag containing the Thorium Oxide.

We understand the land has no salvage value. This property, owned by the Corporation, has been used for the disposal of other industrial chemical wastes. The Exemption has been conditioned upon precautions taken to identify the burial site on the property and by suitable notice filed in the County Clerk's Office. The Company will keep the local health department apprised by letter at monthly intervals of the amount and location of wastes buried in the site.

The low level of activity being buried and the care to be taken at the site are sufficient to assure no public health hazard occurring from this operation.